

IMS/SSC Directory of
Spacecraft and Experiment Scientific Contacts
(Final Update)



National Space Science Data Center/
World Data Center A for Rockets and Satellites
National Aeronautics and Space Administration
Goddard Space Flight Center
Greenbelt, Maryland 20771

INTRODUCTION

The operational phase of the International Magnetospheric Study (IMS) has been completed and the data analysis phase extends from 1980-85. The IMS Central Information Exchange (IMSCIE) Office will produce the *IMS Newsletter* (NL) on an as needed basis during the data analysis phase. One purpose of this NL has been to foster coordination of the various observations by experiments on balloons, rockets, aircraft, ships, ground-based stations, and satellites. The information on achieved measurements of balloons, rockets, aircraft, and ships appeared in the NL, which was published monthly throughout the operational phase. The information on ground-based monitoring measurements appeared in the MONSEE Directory.

With the recognition that many relevant satellite experiments did not appear in the *IMS Bulletin No. 2*, it was suggested by Dr. Paul Simon, head of the European information office, at an ad hoc meeting of the service elements of the IMS held at the Satellite Situation Center (SSC) in October 1976, that a directory of satellite experimenters would be extremely useful to nonsatellite scientist participating in the IMS to facilitate the initiation of diverse analysis projects. This suggestion was adopted at the ad hoc meeting chaired by Dr. Juan Roederer, Chairman of the IMS Steering Committee, and the first such Directory appeared as IMS/SSC report No. 9 in January 1977. Updates to that report have occurred with the issuance of individual sheets. The final update is made at this time to assist those participating in the data analysis phase of the IMS.

The approach used for the Directory has been to include only those satellites and experiments for which some data were known to have been acquired during the IMS. Experiments that provide monitoring of the solar electromagnetic spectrum, such as those on Solrad 11A and 11B, have been included, while the basic solar physics experiments, such as those flown on OSO 8, are not listed. Heliocentric satellites orbiting inside the orbit of the Earth have also been included. However, it should be recognized that Pioneer 6 through 9 accomplished very little acquisition during this period because of priorities for Pioneer 10, Pioneer 11, Viking 1, and Viking 2.

The Directory has a Spacecraft Section and a Scientific Contact Section. There is a separate page for each spacecraft giving:

- a. Spacecraft name in top right-hand corner.
- b. International Designation.
- c. Launch date.

- d. Orbit type - either commensurate, geocentric, geostationary, heliocentric, or selenocentric.
- e. Orbit characteristics.
- f. Name, address, telephone number, and Telex or TWX number of the project scientist or an equivalent person who serves as the main scientific contact for the satellite. For the Telex or TWX, the answer back letters are given after the number.
- g. List of the experiments on the satellite that includes the last name of the scientific contact, the experiment name used by the National Space Science Data Center (NSSDC), and the NSSDC identification number (ID).

For each Scientific Contact listed in the Spacecraft Section, there is a separate page in the Scientific Contact Section giving:

- a. Last name in the top right-hand corner.
- b. Name, address, telephone number, and Telex or TWX number.
- c. List of experiments that includes the satellite name, NSSDC experiment name, NSSDC ID, and when appropriate, a very brief indication of the particles or fields measured. Except for information included in the title, no attempt is made to indicate the type of instrument or detailed features. Where two or more experiments are identical or nearly identical, a brief indication of what is measured appears below the group of experiment names. The following abbreviations are used: IO (Inoperable), OO (Operational off), and P (Partially operational).

In order to keep this Directory a reasonable size, we have listed only the Principal Investigator or a designated scientific contact for each experiment. There are one or more co-investigators for many of these experiments, but the spirit of the Directory is to provide a contact for each experiment. That contact can provide additional names for specific requests concerning the experiment or portions of the data.

The NSSDC ID has been included so that those desiring a little more detail on the spacecraft or the experiments can refer to the *Report of Active and Planned Spacecraft and Experiments (RAPSE)* published annually by NSSDC. The latest RAPSE is dated August 1980 (NSSDC/WDC-A-R&S 80-06). The next RAPSE should be published by September 1981. Co-investigators are listed in these reports.

This Directory has been prepared in a loose-leaf format to permit insertion of additional information or removal of pages that are not of interest; therefore, previous updates to this Directory did not require the publication of a supplement. Future information on the failure of a given spacecraft or experiment will appear in the RAPSE.

Spacecraft and Contacts

AE-C (Spencer)	NOAA 3 (Sauer)
AE-D (Spencer)	NOAA 4 (Sauer)
AE-E (Spencer)	NOAA 5 (Sauer)
Apollo LM/ALSEPs (Eichelman)	NOAA 6 (Sauer)
ATS 5 (Ledley)	OV5-6 (Yates)
ATS 6 (Fritz, T.)	Pioneer 6 (Wolfe)
Cosmos 900 (Tverskoy & Gringauz)	Pioneer 7 (Wolfe)
DMSP 5D-1/F1 (Kroehl)	Pioneer 8 (Wolfe)
DMSP 5D-1/F2 (Kroehl)	Pioneer 9 (Wolfe)
DMSP 5D-1/F3 (Kroehl)	Prognoz 4 (Galeev)
DMSP 5D-1/F4 (Morse)	Prognoz 5 (Galeev)
ESA-GEOS 1 (Knott)	Prognoz 6 (Galeev)
ESA-GEOS 2 (Knott)	Prognoz 7 (Galeev)
GMS (Watanabe)	RAE-B (Alexander)
GOES 1 (Williams)	SMS 1 (Williams)
GOES 2 (Williams)	SMS 2 (Williams)
GOES 3 (Williams)	Solrad 10 (Kreplin)
Hawkeye 1 (Van Allen)	Solrad 11A (Kreplin)
Helios-A (Porsche & Trainor)	Solrad 11B (Kreplin)
Helios-B (Porsche & Trainor)	SRATS or Taiyo (Hirao)
IMP-H (King)	STP P78-1 (Stevens)
IMP-J (King)	STP P78-2 (Ledley)
Intercosmos 14 (Likhter)	S3-2 (Stevens)
Intercosmos 18 (Migulin)	S3-3 (Stevens)
Intercosmos 19 (Migulin)	TIP 1 or TRIAD (Potemra)
ISEE 1 (Ogilvie)	Tiros-N (Sauer)
ISEE 2 (Durney)	Vela 5A (Klebesadel)
ISEE 3 (Von Rosenvinge)	Vela 5B (Klebesadel)
ISIS 1 (Whitteker)	Vela 6A (Klebesadel)
ISIS 2 (Whitteker)	Vela 6B (Klebesadel)
ISS (Ogata)	Venera 11 (Vaisberg)
ISS b (Wakai)	Venera 12 (Vaisberg)
Jikiken (Obayashi)	1976-059A (Higbie)
Kyokko (Hirao)	1977-007A (Higbie)
Magion (Triska)	1979-053A (Higbie)
Magsat (Langel)	

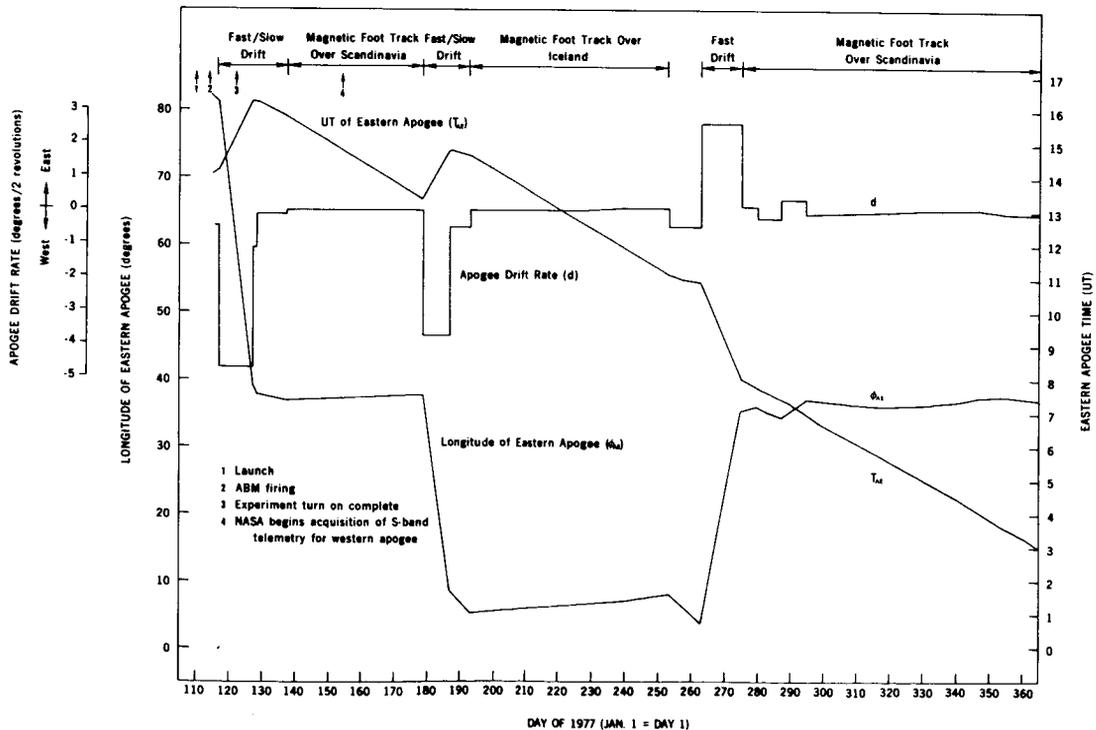
GEOS 1*
 (ESA)
 (OO; 6/23/78)

International Designation: 1977-029A

Launch date: April 20, 1977
 Orbit type: Approximately Commensurate, 12 hours

Epoch (M/D/Y):	5/12/77	7/12/77	12/04/77	4/30/78	3/8/79
Period (min):	718.246	718.200	718.26	718.5	718.0
Inclination:	26.4°	26.5°	26.5°	26.8°	27.3°
Perigee (km alt):	2103	2094	2076.4	1953.9	2033.5
Apogee (km alt):	38,276	38,284	38,301	38,436	38,383.8
Longitude (apogee)	37.3°E 142.7°W	5.4°E 174.6°W	36.8°E 143.2°W	36.9°E 143.1°W	6.58°E 186.46°W

MORPHOLOGY OF THE ESA-GEOS 1 ORBIT FOR 1977



*Common name.

GEOS 1 (continued)
(ESA)

Dr. Karl Knott
Space Science Department
ESA-ESTEC
Domeinweg, Noordwijk
The Netherlands

Telephone: (31) 1719 82587 or
82557
Telex: 84439098 ESTEC NL

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Beghin	Wave Field Impedance (Part of S-300)	77-029A-11
Geiss/ Rosenbauer	Low-Energy Ion Composition	77-029A-03
Gendrin	Magnetic Wave Fields (Part of S-300)	77-029A-06
Hultqvist	Low-Energy Electron and Proton Pitch Angle Distribution	77-029A-04
Mariani	Triaxial Fluxgate Magnetometer	77-029A-09
Melzner/ Haerendel	DC Electric Field and Gradient B by Electron Beam Deflection	77-029A-08
Pedersen	DC Fields by Double Probe (Part of S-300)	77-029A-07
Petit	VLF Plasma Resonances (Part of S-300)	77-029A-05
Ungstrup	Electric Wave Fields (Part of S-300)	77-029A-10
Wilken	Electron and Proton Pitch Angle Distribution	77-029A-01
Wrenn	Thermal Plasma Flow	77-029A-02

International Designation: 1978-071A

Launch date: July 14, 1978

Orbit type: Geostationary

Epoch (M/D/Y): 7/18/78 6/29/79

Period (min): 1421.6 1436

Inclination: 0.8° 0.2°

Longitude: ** 37.7°E

Drift/day: **

Dr. Karl Knott
Space Science Department
ESA-ESTEC
Domeinweg, Noordwijk
The Netherlands

Telephone: (31) 1719 82587 or
82557

Telex: 84439098 ESTEC NL

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Beghin	Wave Field Impedance (Part of S-300)	78-071A-11
Geiss/ Rosenbauer	Low-Energy Ion Composition	78-071A-03
Gendrin	Magnetic Wave Fields (Part of S-300)	78-071A-06
Hultqvist	Low-Energy Electron and Proton Pitch Angle Distribution	78-071A-04
Korth	Electron and Proton Pitch Angle Distribution	78-071A-01
Mariani	Triaxial Fluxgate Magnetometer	78-071A-09
Melzner/ Haerendel	DC Electric Field and Gradient B by Electron Beam Deflection	78-071A-08
Pederson	DC Fields by Double Probe (Part of S-300)	78-071A-07
Petit	VLF Plasma Resonances (Part of S-300)	78-071A-05

*Common name.

**Drifting eastward at 0.3°/day until August 2, at which time the drift was increased to 1°/day until the spacecraft was stopped at its final position at 37.7°E in September 1978.

GEOS 2 (continued)
(ESA)

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Ungstrup	Electric Wave Fields (Part of S-300)	78-071A-10
Wrenn	Thermal Plasma Flow	78-071A-02

International Designation: 1977-065A

Launch date: July 14, 1977
Orbit type: Geostationary

Epoch (M/D/Y):	3/18/78	6/27/79	2/05/80
Period (min):	1436.0	1435.9	1435.9
Inclination:	0.7°	0.8°	0.8°
Longitude:	140.1°E	140.0°E	140.0°E
Drift/day:	0.027°E	--	--

Dr. Kazuo Watanabe
Meteorological Satellite Center
Japanese Meteorological Agency
3-235 Nakakiyoto, Kiyose City
Tokyo, 180-04, Japan

Telephone:
Telex:

Scientific Contact

Experiment

NSSDC ID

Kohno

Space Environment Monitor

77-065A-02

GOES 1*
(00; 6/01/78)

International Designation: 1975-100A

Launch date: October 16, 1975
Orbit type: Geostationary

Epoch (M/D/Y):	6/30/76	5/30/77	3/26/78	9/17/79	12/25/79
Period (min):	1436.0	1436.1	1436.9	1425.5	1427.8
Inclination:	0.4°	0.3°	0.0°	0.1°	0.9°
Longitude:	75°W	74.9°W	133.8°W	58.7°E	135.6°W
Drift/day:	0.031°W	0.002°E	**		

Dr. Donald J. Williams Director (R43) NOAA/Space Environment Lab U.S. Department of Commerce 325 S. Broadway Boulder, CO 80303 U.S.A.	Telephone: (303) 497-3311 Telex: 45897 SOLTERWARN BDR
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<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Donnelly	Solar X-Ray Monitor	75-100A-03
Joselyn	Magnetic Field Monitor	75-100A-04
Sauer	Energetic Particle Monitor	75-100A-02

*Operated: 1/16/76-8/10/77; 3/10/78-6/01/78.
**Moved to 60°E for FGGE in 12/78.

International Designation: 1977-048A

Launch date: June 16, 1977

Orbit type: Geostationary

Epoch (M/D/Y):	7/18/77	3/18/78	8/4/79
Period (min):	1436.1	1436.0	1436.2
Inclination:	0.9°	0.3°	0.3°
Longitude:	67.1°W	75.5°W	103.4°W
Drift/day:	0.0043°W	0.0104°E	

Dr. Donald J. Williams

Telephone: (303) 497-3311

Director (R43)

NOAA/Space Environment Lab

Telex: 45897 SOLTERWARN BDR

U.S. Department of Commerce

325 S. Broadway

Boulder, CO 80303 U.S.A.

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Donnelly	Solar X-Ray Monitor	77-048A-03
Joselyn	Magnetic Field Monitor	77-048A-04
Sauer	Energetic Particle Monitor	77-048A-02

*Operated from 7/20/77.

International Designation: 1978-062A

Launch date: June 16, 1978
Orbit type: Geocentric

Epoch (M/D/Y):	7/13/78	8/27/79
Period (min):	1436.0	1436.1
Inclination:	1.0°	0.3°
Longitude:	134°W**	135.6°W
Drift/day:	1.0°W	

Dr. Donald J. Williams	Telephone: (303) 497-3311
Director (R43)	
Space Environment Lab	Telex: 45897 SOLTERWARN BDR
NOAA	
U.S. Department of Commerce	
325 S. Broadway	
Boulder, CO 80303 U.S.A.	

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Donnelly	Solar X-Ray Monitor	78-062A-03
Joselyn	Magnetic Field Monitor	78-062A-04
Sauer	Energetic Particle Monitor	78-062A-02

*Operated from 7/03/78.

**Final position to be 135°W.

Hawkeye 1
(IO; 4/28/78)

International Designation: 1974-040A

Launch date: June 3, 1974
Orbit type: Geocentric

Epoch (M/D/Y):	6/30/76	12/12/76	6/29/77	12/18/77	2/27/78
Period (min):	3076.9	3076.8	3077.4	3077.7	3076.7
Inclination:	86.8°	86.7°	85.4°	83.6°	83.1°
Perigee (km alt):	4381	3951	3042	1394	801
Apogee (km alt):	123,017	123,443	124,374	126,032	126,595

Prof. James A. Van Allen
Department of Physics and
Astronomy
University of Iowa
Iowa City, IA 52242 U.S.A.

Telephone: (319) 353-4531
TWX: 9105251398
U OF I PHYSICS

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Frank	Low-Energy Protons and Electrons	74-040A-02
Gurnett	ELF/VLF Receivers	74-040A-03
Van Allen	Triaxial Fluxgate Magnetometer	74-040A-01

Notes on Data Acquisition

6/74 thru 6/75 - 93 percent coverage on average
7/75 thru 12/76 - 60 percent coverage on average including all IMS
Special Satellite Periods
1/77 onward - 10 percent coverage on average including all IMS/SSC
Special Periods

Status of Data Reduction (as of 4/77): All data from Iowa Station (NLRO) and NASA STDN Stations (Southern Hemisphere data) through 7/10/76 have been processed into Master Science File form. All NLRO data acquired since 7/10/76 have been run through all stops of processing, except for the final orbit-and-data-merge (FODM). All STDN data acquired since 7/10/76 that have been received have been digitized and STDN data prior to 8/10/76 have been run through all steps but the FODM.

Hawkeye 1 (continued)

The German VHF station at Weilheim acquired data from 10/18/76 to 12/10/76. The total number of Weilheim analog tapes received to date is 144 or about 848 hours of data. Twenty tapes have been processed through all programs, except for the FODM.

The French station at the magnetic South Pole, Terre Adelie, acquired data from 4/01/75 to 6/30/76. Analog tapes received from Terre Adelie have been processed through 2/02/76. The remaining data were due for shipment to Iowa in 2/77.

International Designation: 1974-097A

Launch date: December 10, 1974
Orbit type: Heliocentric

Epoch (M/D/Y):	1/16/76	4/24/77	11/20/79
Period (days):	190.1	190.1	190.2
Inclination:	0°	0.012°	0.024°
Perihelion (AU):	0.309	0.309	0.310
Apohelion (AU):	0.984	0.984	0.985

Dr. Herbert Porsche
DFVLR Oberpfaffenhofen
D-8031 Wessling
Fed. Rep. of Germany

Telephone: (08153)-1381
Telex: 0526419

Dr. James H. Trainor
Code 660
NASA/Goddard Space Flight Center
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-6282
Telex: 89675 NASCOM GBLT

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Fechtig	*Micrometeoroid	74-097A-12
Gurnett	Coarse Frequency, Fine Time Resolu- tion Spectrum Analysis	74-097A-04
Gurnett	Fine Frequency, Coarse Time Resolu- tion Spectrum Analysis	74-097A-05
Gurnett	50-kHz to 2-MHz Radio Waves	74-097A-06
Keppler	Energetic Electron Detector	74-097A-10
Kundt	*Celestial Mechanics	74-097A-14
Kunow	Cosmic Ray Particles	74-097A-07
Leinert	*Zodiacal Light Photometer	74-097A-11
Ness	Fluxgate Magnetometer for Average Fields	74-097A-02

*Not included in Scientific Contact Section; experiment not related to magnetospheric physics.

Helios-A (continued)

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Neubauer	Fluxgate Magnetometer for Field Fluctuations	74-097A-01
Neubauer	Search Coil Magnetometer	74-097A-03
Rosenbauer	Plasma Detectors	74-097A-09
Trainor	Galactic and Solar Cosmic Rays	74-097A-08

Helios-B
(IO; 5/15/80)

International Designation: 1976-003A

Launch date: January 15, 1976
Orbit type: Heliocentric

Epoch (M/D/Y):	7/21/76	4/24/77	5/12/80
Period (days):	185.6	185.7	185.9
Inclination:	0.0°	0.028°	0.029°
Perihelion (AU):	0.289	0.290	0.291
Aphelion (AU):	0.983	0.983	0.984

Dr. Herbert Porsche
DFVLR Oberpfaffenhofen
D-8031 Wessling
Fed. Rep. of Germany

Telephone: (08153)-1381
Telex: 0526419

Dr. James H. Trainor
Code 660
NASA/Goddard Space Flight Center
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-6282
Telex: 89675 NASCOM GBLT

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Fechtig	*Micrometeoroid	76-003A-12
Gurnett	Coarse Frequency, Fine Time Resolution Spectrum Analysis	76-003A-04
Gurnett	Fine Frequency, Coarse Time Resolution Spectrum Analysis	76-003A-05
Gurnett	50-kHz to 2-MHz Radio Waves	76-003A-06
Keppler	Energetic Electron Detector	76-003A-10
Kundt	*Celestial Mechanics	76-003A-14
Kunow	Cosmic Ray Particles	76-003A-07
Leinert	*Zodiacal Light Photometer	76-003A-11
Ness	Fluxgate Magnetometer for Average Fields	76-003A-02

*Not included in Scientific Contact Section; experiment not related to magnetospheric physics.

Helios-B (continued)

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Neubauer	Fluxgate Magnetometer for Field Fluctuations	76-003A-01
Neubauer	Search Coil Magnetometer	76-003A-03
Rosenbauer	Plasma Detectors	76-003A-09
Trainor	Galactic and Solar Cosmic Rays	76-003A-08

IMP-H
(OO; 10/31/78)

International Designation: 1972-073A

Launch date: September 23, 1972
Orbit type: Geocentric

Epoch (M/D/Y):	6/30/76	2/27/77	6/30/77	12/30/77	5/29/78
Period (min):	17,635.5	17,714.5	17,402.1	17,786.5	17,441.5
Inclination:	29.0°	34.4°	38.0°	40.8°	42.9°
Perigee (km alt):	204,741	203,841	196,427	202,774	185,383
Apogee (km alt):	231,368	233,606	235,712	235,893	247,427

Dr. Joseph H. King
Code 692
NASA/Goddard Space Flight Center
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-6221
Telex: 89675 NASCOM GBLT

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Bame	Solar Plasma Electrostatic Analyzer	72-073A-10
Bridge	Solar Plasma Faraday Cup	72-073A-02
Cline	Study of Cosmic Ray, Solar, and Magnetospheric Electrons	72-073A-13
Frank	Measurement of Low-Energy Protons and Electrons	72-073A-04
Gloeckler	Ions and Electrons in the Energy Range 0.1 to 2 MeV	72-073A-03
Krimigis	Charged Particle Measurements	72-073A-08
McDonald	Solar and Cosmic Ray Particles	72-073A-09
Ogilvie	Solar Wind Ion Composition	72-073A-12
Scarf	Plasma Waves	72-073A-11
Simpson	Solar Flare High-Z/Low-E and Low-Z Isotopes	72-073A-07
Stone	Electrons and Hydrogen and Helium Isotopes	72-073A-06
Williams	Energetic Electrons and Protons	72-073A-05

International Designation: 1973-078A

Launch date: October 26, 1973
Orbit type: Geocentric

Epoch (M/D/Y):	6/30/76	2/27/77	6/30/77	12/30/77	5/04/78
Period (min):	17,448.7	17,470.2	17,711.7	17,481.0	17,724.4
Inclination:	22.9°	27.7°	29.6°	34.1°	38.7°
Perigee (km alt):	196,594	196,666	193,099	169,500	177,347
Apogee (km alt):	236,340	236,634	244,300	263,987	260,269

Epoch (M/D/Y): 6/29/79
Period (min): 17,457.2
Inclination: 48.1°
Perigee (km alt): 178,248
Apogee (km alt): 254,830

Dr. Joseph H. King
Code 692
NASA/Goddard Space Flight Center
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-6221
Telex: 89675 NASCOM GBLT

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Aggson	Electrostatic Fields	73-078A-11
Bame	Solar Plasma Electrostatic Analyzer	73-078A-10
Bridge	Solar Plasma Faraday Cup	73-078A-02
Frank	Measurement of Low-Energy Protons and Electrons	73-078A-04
Gloeckler	Solid-State Detectors	73-078A-03
Gurnett	Electrostatic Waves and Radio Noise	73-078A-12
Krimigis	Charged Particle Measurements	73-078A-08
McDonald	Solar and Cosmic Ray Particles	73-078A-09
Ness	Magnetic Fields	73-078A-01
Simpson	Solar Flare High-Z/Low-E and Low-Z Isotopes	73-078A-07
Stone	Electrons and Hydrogen and Helium Isotopes	73-078A-06
Williams	Energetic Electrons and Protons	73-078A-05

Intercosmos 14
(IO; 6/28/76)

International Designation: 1975-115A

Launch date: December 11, 1975
Orbit type: Geocentric

Epoch (M/D/Y): 12/11/75 6/28/76
Period (min): 105.2 105.1
Inclination: 74° 73.9°
Perigee (km alt): 345 333
Apogee (km alt): 1707 1671

Dr. J. I. Likhter
IZMIRAN
P/O Academgorodok
Moscow Region
U. S. S. R.

Telephone: 232-19-21
Telex: 7523 SOLTER SU

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Gdalevich/ Serafimov	Spherical Ion Traps	75-115A-01
Gringauz/ Smilauer	Perpendicular and Parallel Electron Temperature	75-115A-02
Likhter/ Triska	ELF/VLF Receiver	75-115A-03
Nazarova/ Zakharov/ Apathy	*Micrometeorite Detector	75-115A-04
Smilauer	Four-Frequency Beacon	75-115A-05

*Not included in Scientific Contact Section; experiment not related to magnetospheric physics.

International Designation: 1978-099A

Launch date: October 24, 1978
Orbit type: Geocentric

Epoch (M/D/Y): 10/25/78
Period (min): 96.4
Inclination: 83.°
Perigee (km alt): 407
Apogee (km alt): 768

Prof. V. V. Migulin
IZMIRAN
P/O Academgorodok
Moscow Region
U.S.S.R.

Telephone: 232-19-21
Telex: 7523 SOLTER SU

Measured parameters included: 3 components of the geomagnetic field; low-energy particle fluxes and their angular distributions (electrons and positive ions, 100 eV to 50 keV); VLF waves (100 H to 16 KH); electrostatic fields (3 components); electron and ion densities and temperatures; and ion and neutral composition. Information about the experiments and investigators has been requested but not provided.

International Designation: 1979-020A

Launch date: February 27, 1979
Orbit type: Geocentric

Epoch (M/D/Y): 02/28/79
Period (min): 99.8
Inclination: 74.°
Perigee (km alt): 502
Apogee (km alt): 966

Prof. V. V. Migulin
IZMIRAN
P/O Academgorodok
Moscow Region
U.S.S.R.

Telephone: 232-19-21
Telex: 7523 SOLTER SU

Measurements included a topside sounder for determining electron densities, wave processes in the magnetospheric plasma in the frequency range 100 Hz to 5 MHz, emissions in the 6300-6364Å bands and 3914 and 5577Å lines, charged particles with energies between 10 eV and 50 MeV, and local ion and electron densities and temperatures. Information about the experiments and investigators has been requested but not received.

International Designation: 1977-102A

Launch date: October 22, 1977
Orbit type: Geocentric

Epoch (M/D/Y):	10/22/77	4/30/78	6/29/79
Period (min):	3446.4	3437.3	3441.9
Inclination:	28.7°	38.2°	50.1°
Perigee (km alt):	281	714	2912
Apogee (km alt):	138,120	137,524	135,359

Dr. Keith W. Ogilvie
Code 692
NASA/Goddard Space Flight Center
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-5904
Telex: 89675 NASCOM GBLT

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Anderson	Electrons and Protons	77-102A-10
Bame	Fast Plasma Probes and Solar Wind Ion Probe	77-102A-01
Cline	**Gamma-Ray Bursts	77-102A-14
Frank	Hot Plasma	77-102A-03
Gurnett	Magnetic and Electric Field Triaxial Probes	77-102A-07
Harvey	Plasma Density	77-102A-08
Helliwell	VLF Wave Injection	77-102A-13
Heppner	DC and AC Electric Fields	77-102A-11
Hovestadt	Low-Energy Cosmic Ray Composition	77-102A-05
Mozer	Electric Field Probe	77-102A-06
Ogilvie	Three-Dimensional (Six Axes) Electron Spectrometer	77-102A-02
Russell	Fluxgate Magnetometers	77-102A-04
Sharp	Ion Mass Spectrometer	77-102A-12
Williams	Energetic Electrons and Protons	77-102A-09

*High data rate every 5th orbit (16 kbs; otherwise 4 kbs).

**Not included in Scientific Contact Section; experiment not related to magnetospheric physics.

International Designation: 1977-102B

Launch date: October 22, 1977

Orbit type: Geocentric

Epoch (M/D/Y):	10/22/77	6/04/78	6/29/79
Period (min):	3453.1	3441.8	3,444.2
Inclination:	28.7°	39.5°	50.2°
Perigee (km alt):	280	1206	2940
Apogee (km alt):	138,217	137,063	135,397

Dr. Alastair G. Durney
European Space Agency
ESTEC
Domeinweg, Noordwijk
The Netherlands

Telephone: (31) 1719 82652
Telex: 84431698 ESTEC NL

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Anderson	Electrons and Protons	77-102B-08
Egidi	Positive Ion Electrostatic Deflector	77-102B-02
Frank	Hot Plasma	
Gurnett	Monoaxial Magnetic and Biaxial Electric Field Probes	77-102B-03 77-102B-05
Harvey	Radio Propagation Receiver	77-102B-06
Keppler	Energetic Electrons and Protons	77-102B-07
Paschmann	Fast Plasma Probes	77-102B-01
Russell	Fluxgate Magnetometers	77-102B-04

International Designation: 1978-079A

Launch date: August 12, 1978
Orbit type: Transfer Heliocentric

Epoch (M/D/Y): *8/12/78 11/25/78
Period (min): 73,702 365 days
Inclination: 28.8° 0°
Perigee (km alt): 179 0.99 au rad.
Apogee (km alt): 1,151,666 0.99 au rad.

Dr. Tycho T. von Rosenvinge
Code 661
NASA/Goddard Space Flight Center
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-6721
Telex: 89675 NASCOM GBLT

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Anderson	Interplanetary and Solar Electrons	78-079A-09
Anderson	X- and Gamma-Ray Bursts	78-079A-14
Bame	Solar Wind Plasma Probe	78-079A-01
Heckman	High-Energy Cosmic Rays	78-079A-05
Hovestadt	Low-Energy Cosmic Ray Composition	78-079A-03
Hynds	Energetic Protons	78-079A-08
Meyer	Cosmic Ray Electrons and Nuclei	78-079A-06
Ogilvie	Ion Mass Spectrometer	78-079A-11
Scarf	Plasma Waves	78-079A-07
Smith	Vector Helium Magnetometer	78-079A-02
Steinberg	Radio Mapping	78-079A-10
Stone	Cosmic Ray Composition	78-079A-12
Teegarden	**Gamma-Ray Bursts	78-079A-15
von Rosenvinge	Medium Energy Cosmic Rays	78-079A-04

*These are transfer orbit elements. The spacecraft was injected into final orbit around libration point L_1 along the Earth-Sun line on November 20, 1978, 1.5×10^6 km from Earth. The period of the halo orbit is 178 days.

**Not included in Scientific Contact Section; experiment not related to magnetospheric physics.

International Designation: 1969-009A

Launch date: January 30, 1969
Orbit type: Geocentric

Epoch (M/D/Y):	6/30/76	12/31/76	6/30/77	12/28/77	5/12/78
Period (min):	128.2	128.2	128.2	128.2	128.2
Inclination:	88.4°	88.4°	88.4°	88.4°	88.4°
Perigee (km alt):	579	574	578	578	576
Apogee (km alt):	3516	3514	3517	3517	3511

Epoch (M/D/Y):	6/29/79
Period (min):	128.2
Inclination:	88.4°
Perigee (km alt):	578
Apogee (km alt):	3513

Dr. J. H. Whitteker
Communications Research Centre
Shirley Bay, P. O. Box 11490,
Station 'H'
Ottawa, Ontario K2H 8S2
Canada

Telephone: (613) 596-9279
Telex: 0534143 CRC RESCEN
OTT

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Barrington	VLF Receiver	69-009A-03
Brace	Cylindrical Electrostatic Probe	69-009A-07
Hartz	Cosmic Radio Noise	69-009A-10
McDiarmid	Energetic Particle Detectors	69-009A-04
Sagalyn	Spherical Electrostatic Analyzer	69-009A-08
Whitteker	Sweep Frequency Sounder	69-009A-01
Whitteker	Fixed Frequency Sounder	69-009A-02

All in situ measurements terminated September 30, 1979. Sounder data will still be acquired by non-NASA stations until summer of 1980.

International Designation: 1971-024A

Launch date: April 1, 1971
Orbit type: Geocentric

Epoch (M/D/Y):	6/30/76	12/31/76	6/28/77	12/30/77	5/12/78
Period (min):	113.6	113.548	113.6	113.6	113.55
Inclination:	88.1°	88.2°	88.1°	88.1°	88.2°
Perigee (km alt):	1358	1356	1361	1359	1355
Apogee (km alt):	1428	1423	1426	1427	1424

Epoch (M/D/Y):	6/29/79
Period (min):	113.6
Inclination:	88.1°
Perigee (km alt):	1361
Apogee (km alt):	1425

Dr. J. H. Whitteker
Communications Research Centre
Shirley Bay, P. O. Box 11490,
Station 'H'
Ottawa, Ontario K2H 8S2
Canada

Telephone: (613) 596-9279
Telex: 0534143 CRC RESCEN
OTT

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Anger	3914- to 5577-Å Photometer	71-024A-11
Barrington	VLF Receiver	71-024A-03
Brace	Cylindrical Electrostatic Probe	71-024A-07
Hartz	Cosmic Radio Noise	71-024A-10
Heikkila	Soft-Particle Spectrometer	71-024A-05
Hoffman, J.	Ion Mass Spectrometer	71-024A-06
Maier	Retarding Potential Analyzer	71-024A-08
McDiarmid	Energetic Particle Detectors	71-024A-04
Shepherd	6300-Å Photometer	71-024A-12
Whitteker	Swept Frequency Sounder	71-024A-01
Whitteker	Fixed Frequency Sounder	71-024A-02

All in situ measurements except Anger's terminated September 30, 1979. Sounder data and photometer measurements will be acquired by non-NASA stations until the summer of 1980.

ISS
(IO; 4/02/76)

International Designation: 1976-019A

Launch date: February 29, 1976
Orbit type: Geocentric

Epoch (M/D/Y):	6/30/76	4/29/76
Period (min):	105.1	105.1
Inclination:	69.6°	69.6°
Perigee (km alt):	996	995
Apogee (km alt):	1011	1011

Dr. Yoshiharu Ogata
Principal Research Officer
Radio Research Laboratories
4-2-1, Nakui-Kitamachi, Koganei-Shi
Tokyo 184, Japan

Telephone: 0423-21-1211
Telex: 2832611 DEMPA J

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Fugono	Positive Ion Mass Spectrometer	76-019A-04
Kuriki	Radio Noise Near 2.5, 5, 10, and 25 MHz	76-019A-02
Matuura	Swept Frequency Topside Sounder	76-019A-01
Miyazaki	Retarding Potential Probe	76-019A-03

International Designation: 1978-018A

Launch date: February 16, 1978
Orbit type: Geocentric

Epoch (M/D/Y):	2/16/78	6/29/79
Period (min):	107.3	107.2
Inclination:	69.4°	69.3°
Perigee (km alt):	980	977
Apogee (km alt):	1228	1221

Dr. N. Wakai
Radio Research Laboratories
4-2-1, Nakui-Kitamachi, Koganei-Shi
Tokyo 184, Japan

Telephone: 0423-21-1211
Telex: 2832611 DEMPA J

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Iwamoto	Bennett Ion Mass Spectrometers	78-018A-04
Kotaki	Radio Noise Receiver	78-018A-02
Matuura	Swept Frequency Topside Sounder	78-018A-01
Mori	Spherical Retarding Potential Trap	78-018A-03

Jikiken

International Designation: 1978-087A

Launch date: September 16, 1978
Orbit type: Geocentric

Epoch (M/D/Y): 6/11/79
Period (min): 496.2
Inclination: 31.504°
Perigee (km alt): 236
Apogee (km alt): 28,530

Prof. Tatsuzo Obayashi
Institute of Space and Aero-
nautical Science
University of Tokyo
4-6-1 Komaba, Meguro-Ku
Tokyo 153
Japan

Telephone: 03-467-1111
Telex: J24550 SPACE TKY

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Aoyama	Fluxgate Magnetometer	78-087A-05
Ejiri	Impedance and Electric Fields	78-087A-04
Kawashima	Controlled Electron Beam Emissions	78-087A-07
Kimura	VLF Doppler Propagation	78-087A-03
Kubo	Energy Spectrum of Particles	78-087A-06
Oya	Stimulated Plasma Wave	78-087A-01
Oya	Natural Plasma Wave	78-087A-02

Kyokko*
(OO; 11/09/79)

International Designation: 1978-014A

Launch date: February 4, 1978
Orbit type: Geocentric

Epoch (M/D/Y):	2/06/78	6/29/79
Period (min):	134.2	134.2
Inclination:	65.4°	65.3°
Perigee (km alt):	636	636
Apogee (km alt):	3978	3977

Prof. Kunio Hirao
Institute of Space and Aero-
nautical Science
University of Tokyo
4-6-1 Komaba, Meguro-Ku
Tokyo 153
Japan

Telephone: 03-467-1111
Ext. 249
Telex: J24550 SPACE TKY

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Iwamoto	Ion Mass Spectrometer	78-014A-06
Kaneda	UV Auroral TV Imager	78-014A-03
Mukai	Electron Energy Analyzer	78-014A-02
Nakamura	UV Glow Spectrophotometer	78-014A-05
Oyama	Electron Probes	78-014A-01
Yoshino	Plasma Wave Detector	78-014A-04

*All instruments turned on by 2/28/78.

International Designation: 1978-099C

Launch date: October 24, 1978
Orbit type: Geocentric

Epoch (M/D/Y): 10/25/78
Period (min): 96.4
Inclination: 83.0
Perigee (km alt): 407
Apogee (km alt): 768

Dr. Pavel Triska
Ionosphere Department
Geophysical Institute
Czechoslovak Academy of Sciences
Sponilov Bocni II
141 31 Prague 4
Czechoslovakia

Telephone:
Telex:

A request for information about the experiments and the investigators has been made but nothing has been provided.

MAGSAT
(IO; 6/11/80)

International Designation: 1979-094A

Launch date: October 30, 1979
Orbit type: Geocentric

Epoch (M/D/Y): 10/30/79
Period (min): 94
Inclination: 96.76°
Perigee (km alt): 352
Apogee (km alt): 578

Dr. Robert A. Langel
Code 922
NASA/Goddard Space Flight Center
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-6565
Telex: 89675 NASCOM GBLT

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Langel	Cesium Vapor Scalar Magnetometer	79-094A-01
Langel	Vector Fluxgate Magnetometer	79-094A-02

NOAA 3
(IO; 8/00/76)

International Designation: 1973-086A

Launch date: November 6, 1973
Orbit type: Geocentric

Epoch (M/D/Y): 6/30/76
Period (min): 116.1
Inclination: 101.9°
Perigee (km alt): 1504
Apogee (km alt): 1512

Mr. Herbert H. Sauer
Code R43
Space Environment Laboratory
NOAA Environmental Research
Laboratories
Boulder, CO 80303 U.S.A.

Telephone: (303) 497-3681
Telex: 45897 SOLTERWARN BDR

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Sauer	Solar Proton Monitor	73-086A-01

NOAA 4
(IO; 11/18/78)

International Designation: 1974-089A

Launch date: November 15, 1974
Orbit type: Geocentric

Epoch (M/D/Y):	6/30/76	2/27/77	6/30/77	12/30/77	5/11/78
Period (min):	114.9	114.9	114.9	114.9	114.9
Inclination:	101.6°	101.6°	101.5°	101.5°	101.6°
Perigee (km alt):	1447	1447	1447	1447	1445
Apogee (km alt):	1461	1461	1461	1461	1457

Mr. Herbert H. Sauer
Code R43
Space Environment Laboratory
NOAA Environmental Research
Laboratories
Boulder, CO 80303 U.S.A.

Telephone: (303) 497-3681
Telex: 45897 SOLTERWARN BDR

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Sauer	Solar Proton Monitor	74-089A-01

NOAA 5
(OO: 7/16/79)

International Designation: 1976-077A

Launch date: July 29, 1976
Orbit type: Geocentric

Epoch (M/D/Y):	7/30/76	2/27/77	6/23/77	12/29/77	5/11/78
Period (min):	116.2	116.2	116.2	116.2	116.2
Inclination:	102.1°	102.0°	102.1°	102.0°	102.0°
Perigee (km alt):	1504	1507	1504	1504	1503
Apogee (km alt):	1519	1522	1519	1519	1519

Mr. Herbert H. Sauer
Code R43
Space Environment Laboratory
NOAA Environmental Research
Laboratories
Boulder, CO 80303 U.S.A.

Telephone: (303) 497-3681
Telex: 45897 SOLTERWARN BDR

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Sauer	Solar Proton Monitor	76-077A-04

International Designation: 1979-057A

Launch date: June 27, 1979
Orbit type: Geocentric

Epoch (M/D/Y): 6/27/79
Period (min): 101.3
Inclination: 98.7°
Perigee (km alt): 808
Apogee (km alt): 823

Mr. Herbert H. Sauer
Code R43
Space Environment Laboratory
NOAA Environmental Research
Laboratories
Boulder, CO 80303 U.S.A.

Telephone: (303) 497-3681
Telex: 45897 SOLTERWARN BDR

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Sauer	Space Environment Monitor	79-057A-04

OV5-6
(IO; 8/01/76)

International Designation: 1969-046B

Launch date: May 23, 1969
Orbit type: Geocentric

Epoch (M/D/Y): 6/30/76
Period (min): 3117.2
Inclination: 50.3°
Perigee (km alt): 6072
Apogee (km alt): 122,545

Dr. Ken Yates
Code PHE
USAF Geophysics Laboratory
Hanscom AFB
Bedford, MA 01731 U.S.A.

Telephone: (617) 861-2933
Telex: None

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Yates	Geiger-Mueller Tube, Solar X-Ray Detector, 2 to 12Å	69-046B-01
Yates	Sodium Iodide Scintillator, Gamma Ray Detector, 19 to 1175 keV	69-046B-02
Yates	Proton-Alpha Particle Telescope	69-046B-03
Yates	Low-Energy Electron Detector	69-046B-05

Pioneer 6*

International Designation: 1965-105A

Launch date: December 16, 1965
Orbit type: Heliocentric

Epoch (M/D/Y):	7/15/75	12/31/76	6/16/77	1/06/80
Period (days):	311.1	311.1	311.1	311.1
Inclination:	0.168°	0.168°	0.168°	0.169°
Perihelion (AU):	0.813	0.813	0.814	0.814
Aphelion (AU):	0.983	0.983	0.983	0.983

Dr. John H. Wolfe
Mail Stop 245-11
Space Physics Branch
NASA/Ames Research Center
Moffett Field, CA 94035 U.S.A.

Telephone: (415) 965-5518
Telex: 348408 NASA AMES
MOFD

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Bridge	Solar Wind Plasma Faraday Cup	65-105A-02
Fan	Cosmic Ray Telescope	65-105A-03
McCracken	Cosmic Ray Anisotropy	65-105A-05
Wolfe	Electrostatic Analyzer	65-105A-06

*Data acquisition rate was substandard during IMS because of Pioneer 10 and 11 and Viking 1 and 2.

Pioneer 7*
(OO; 2/07/76)

International Designation: 1966-075A

Launch date: August 17, 1966
Orbit type: Heliocentric

Epoch (M/D/Y): 2/12/76
Period (days): 402.9
Inclination: 0.098°
Perihelion (AU): 1.009
Aphelion (AU): 1.125

Dr. John H. Wolfe
Mail Stop 245-11
Space Physics Branch
NASA/Ames Research Center
Moffett Field, CA 94035 U.S.A.

Telephone: (415) 965-5518
Telex: 348408 NASA AMES
MOFD

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
McCracken	*Cosmic Ray Anisotropy	66-075A-05
Simpson	*Cosmic Ray Telescope	66-075A-06
Wolfe	*Electrostatic Analyzer	66-075A-03

*Spacecraft power degradation caused all experiments to be turned off on 2/10/76. Because of small amount of data acquisition prior to this in 1976, none of these experiments are included in the Scientific Contact Section.

Pioneer 8*
(IO; 1/21/78)

International Designation: 1967-123A

Launch date: December 13, 1967
Orbit type: Heliocentric

Epoch (M/D/Y):	9/17/75	12/31/76	6/23/77
Period (days):	387.5	387.5	387.5
Inclination:	0.057°	0.057°	0.059°
Perihelion (AU):	0.992	0.992	0.992
Aphelion (AU):	1.088	1.088	1.089

Dr. John H. Wolfe
Mail Stop 245-11
Space Physics Branch
NASA/Ames Research Center
Moffett Field, CA 94035 U.S.A.

Telephone: (415) 965-5518
Telex: 348408 NASA AMES
MOFD

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Eshleman	Two-Frequency Beacon Receiver	67-123A-03
Ness	Single-Axis Magnetometer	67-123A-01
Scarf	Plasma Waves	67-123A-07
Wolfe	Electrostatic Analyzer	67-123A-02

*Data acquisition rate was substandard during IMS because of Pioneer 10 and 11 and Viking 1 and 2.

International Designation: 1968-100A

Launch date: November 8, 1968
Orbit type: Heliocentric

Epoch (M/D/Y):	2/27/76	8/06/76	5/31/77	11/9/79
Period (days):	297.6	297.5	297.5	297.5
Inclination:	0.086°	0.086°	0.087°	0.090°
Perihelion (AU):	0.754	0.754	0.754	0.754
Aphelion (AU):	0.990	0.990	0.990	0.990

Dr. John H. Wolfe
Mail Stop 245-11
Space Physics Branch
NASA/Ames Research Center
Moffett Field, CA 94035 U.S.A.

Telephone: (415) 965-5518
Telex: 348408 NASA AMES
MOFD

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Berg	**Cosmic Dust Detector	68-100A-04
Eshleman	Two-Frequency Beacon Receiver	68-100A-03
McCracken	Cosmic Ray Anisotropy	68-100A-05
Scarf	Plasma Waves	68-100A-07
Sonnett	Triaxial Magnetometer	68-100A-01
Webber	Cosmic Ray Telescope	68-100A-06
Wolfe	Electrostatic Analyzer	68-100A-02

*Data acquisition rate was substandard during IMS because of Pioneer 10 and 11 and Viking 1 and 2.

**Not included in Scientific Contact Section; experiment not related to magnetospheric physics.

Prognoz 4
(IO; 3/00/76)

International Designation: 1975-122A

Launch date: December 12, 1975
Orbit type: Geocentric

Epoch (M/D/Y): 1/26/76
Period (min): 5778
Inclination: 65.3°
Perigee (km alt): 1113
Apogee (km alt): 199,459

Dr. A. A. Galeev
Space Research Institute
U.S.S.R. Academy of Sciences
Profsoyuznaya Ulitsa 88
Moscow V-485, 117810
U.S.S.R.

Telephone: 333-31-22
Telex: 7523 SOLTER SU

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Eroshenko	Three-Axis Fluxgate Magnetometer	75-122A-01
Grigoryeva	Kilometric/Hectometric Receiver	75-122A-05
Gringauz	Plasma Detector	75-122A-02
Kacharov	Solar X Rays	75-122A-03
Logachev	Energetic Particles and Charge Composition	75-122A-04
Skrebtsov	Proton and Heavy Nuclei	75-122A-06

Prognoz 5
(IO; 7/20/77)

International Designation: 1976-112A

Launch date: November 25, 1976

Orbit type: Geocentric

Epoch (M/D/Y): 11/29/76 6/01/77
Period (min): 5713.78 5718.237
Inclination: 65.0° 66.0°
Perigee (km alt): 497 2728
Apogee (km alt): 199,860 196,405

Dr. A. A. Galeev
Space Research Institute
U.S.S.R. Academy of Sciences
Profsoyuznaya Ulitsa 88
Moscow V-485, 117810
U.S.S.R.

Telephone: 333-31-22
Telex: 7523 SOLTER SU

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Eroshenko	Three-Axis Fluxgate Magnetometer	76-112A-01
Grigoryeva	Kilometric/Hectometric Receiver	76-112A-05
Gringauz	Plasma Detector	76-112A-02
Kacharov	Solar X Rays	76-112A-03
Kurt/Bertaux	Interplanetary UV Emission Photometer	76-112A-08
Lickin/Valnicek	Solar X-Ray Spectrometer	76-112A-07
Logachev	Energetic Particles and Charge Composition	76-112A-04
Lutsenko	Energetic Particles Charge and Mass Composition	76-112A-06
Zertsalov/ Bosque	Plasma Spectrometers	76-112A-09

International Designation: 1977-093A

Launch date: September 22, 1977
Orbit type: Geocentric

Epoch (M/D/Y): 9/22/77
Period (min): 5688
Inclination: 65°
Perigee (km alt): 498
Apogee (km alt): 197,900

Dr. A. A. Galeev
Space Research Institute
U.S.S.R. Academy of Sciences
Profsoyuznaya Ulitsa 88
Moscow V-485, 117810
U.S.S.R.

Telephone: 333-31-22
Telex: 7523 SOLTER SU

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Eroshenko	Three-Axis Fluxgate Magnetometer	77-093A-01
Estulin/Vedrenne	*Gamma-Ray Spectrometer	77-093A-05
Gringauz	Plasma Detector	77-093A-02
Kacharov	Solar X Rays	77-093A-03
Kurt/Bertaux	Interplanetary UV Emission Photometer	77-093A-08
Lickin/Valnicek	Solar X-Ray Spectrometer	77-093A-07
Logachev	Electron and Proton Spectrometer	77-093A-04
Lutsenko/Fischer	Energetic Particles Charge and Mass Composition	77-093A-11
Pisarenko/Treger	Energetic Electron and Proton Spectrometer	77-093A-09
Severny/Courtes	UV Emission Scanning Spectrometer	77-093A-10
Skrebtsov	Proton and Heavy Nuclei Spectrometer	77-093A-06

*Not included in Scientific Contact Section; experiment not related to magnetospheric physics.

Prognoz 7
(IO; 6/00/79)

International Designation: 1978-101A

Launch date: October 30, 1978
Orbit type: Geocentric

Epoch (M/D/Y): 10/31/78
Period (min): 5889
Inclination: 65.0°
Perigee (km alt): 497
Apogee (km alt): 202,965

Dr. A. A. Galeev
Space Research Institute
U.S.S.R. Academy of Sciences
Profsoyuznaya Ulitsa 88
Moscow V-485, 117810
U.S.S.R.

Telephone: 333-31-22
Telex: 7523 SOLTER SU

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Dolginov	Three-Axis Fluxgate Magnetometers	78-101A-04
Estulin/Vedrenne	*Gamma-Ray Spectrometer	78-101A-03
Gringauz/Gombosi/ Smilauer	Electrical Scanning Plasma Detector	78-101A-05
Hultqvist	Magnetospheric Ion Composition Spec- trometer	78-101A-02
Kacharov	X-Ray Spectrometer	78-101A-06
Kovalev	Proton Spectrometer	78-101A-14
Kovalev	Standard Dosimeter	78-101A-15
Kulagin	UV Detector	78-101A-08
Lickin/Valnicek	Solar X-Ray Spectrometer	78-101A-07
Logachev	Electron and Proton Spectrometer	78-101A-11
Logachev	Energetic Particle Charge and Mass Composition	78-101A-12
Logachev	Gas Discharge Counter	78-101A-13
Pisarenko/Treger	Energetic Electron Spectrometer	78-101A-09
Severny/Courtes	UV Emission Scanning Spectrometer	78-101A-10
Vaisberg	Selective Combined Plasma Spectrometer	78-101A-01

*Not included in Scientific Contact Section; experiment not related to magnetospheric physics.

RAE-B
(IO; 4/26/77)

International Designation: 1972-039A

Launch date: June 10, 1972
Orbit type: Selenocentric

Epoch (M/D/Y): 9/06/76
Period (min): 221.9
Inclination: 85.7°
Periselene (km alt): 968
Aposelene (km alt): 1162

Mr. Joseph K. Alexander, Jr.
Code 695
NASA/Goddard Space Flight Center
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-5461
Telex: 89675 NASCOM GBLT

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Alexander, Jr.	Rapid-Burst Receivers	73-039A-02
Stone	*Radio Astronomy Nine-Frequency V Antenna	73-039A-01

*Not included in Scientific Contact Section; experiment not related to magnetospheric physics.

SMS 1*
(00; 7/19/77)

International Designation: 1974-033A

Launch date: May 17, 1974
Orbit type: Geostationary

Epoch (M/D/Y):	6/30/76	10/01/76	7/09/77
Period (min):	1436.2	1436.3	1436.3
Inclination:	2.0°	2.2°	2.6°
Longitude:	104°W	104.2°W	105.5°W
Drift/day:	0.0054°E	0.0028°W	0.0042°W

Dr. Donald J. Williams
Director (R43)
NOAA/Space Environment Laboratory
U.S. Dept. of Commerce
325 S. Broadway
Boulder, CO 80303 U.S.A.

Telephone: (303) 497-3311
Telex: 45897 SOLTERWARN BDR

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Donnelly	Solar X-Ray Monitor	74-033A-03
Joselyn	Magnetic Field Monitor	74-033A-04
Sauer	Energetic Particle Monitor	74-033A-02

*Operated 7/01/74-1/15/76, 5/18/76-8/16/76, 5/09/77-7/18/77.

SMS 2*
(00; 7/16/78)

International Designation: 1975-011A

Launch date: February 6, 1975
Orbit type: Geostationary

Epoch (M/D/Y):	6/30/76	10/24/76	6/28/77	12/19/77	3/17/78
Period (min):	1436.3	1436.05	1436.2	1436.1	1436.1
Inclination:	0.2°	0.3°	0.1°	0.0°	0.0°
Longitude:	135°	135.3°W	135.5°W	135.1°W	135.5°W
Drift/day:	0.014°W	0.023°W	0.048°E	0.002°E	0.005°W

Dr. Donald J. Williams
Director (R43)
NOAA/Space Environment Laboratory
U.S. Dept. of Commerce
325 S. Broadway
Boulder, CO 80303 U.S.A.

Telephone: (303) 497-3311
Telex: 45897 SOLTERWARN BDR

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Donnelly	Solar X-Ray Monitor	75-011A-02
Joselyn	Magnetic Field Monitor	75-011A-03
Sauer	Energetic Particle Monitor	75-011A-01

*Operated 2/10/75-5/18/76, 8/17/76-5/08/77, 8/11/77-3/10/78,
6/01/78-7/03/78.

Solrad 10
(IO; 7/00/78)

International Designation: 1971-058A

Launch date: July 8, 1971
Orbit type: Geocentric

Epoch (M/D/Y):	6/30/76	6/30/77	12/30/77
Period (min):	94.6	94.5	94.4
Inclination:	51.0°	51.0°	51.0°
Perigee (km alt):	425	420	416
Apogee (km alt):	577	572	566

Mr. Robert W. Kreplin
Code 7175
Space Science Division
U. S. Naval Research Laboratory
4555 Overlook Avenue, SW
Washington, DC 20375 U.S.A.

Telephone: (202) 767-2603
Telex: 892632 TCC NRL WSH

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Kreplin	Solar Radiation Detectors	71-058A-01

Solrad 11A
(IO: 6/12/77)

International Designation: 1976-023C

Launch date: March 15, 1976
Orbit type: Geocentric

Epoch (M/D/Y):	6/30/76	6/29/77
Period (min):	7344.3	7339.1
Inclination:	25.7°	27.2°
Perigee (km alt):	118,383	117,739
Apogee (km alt):	119,180	119,704

Mr. Robert W. Kreplin
Code 7175
Space Science Division
U. S. Naval Research Laboratory
4555 Overlook Avenue, SW
Washington, DC 20375 U.S.A.

Telephone: (202) 767-2603
Telex: 892632 TCC NRL WSH

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Blake	Solar Protons	76-023C-14
Blake	Omnidirectional Protons	76-023C-17
Blake	Antisolar Protons	76-023C-23
Byram	Stellar/Auroral X Rays	76-023C-16
Doschek	Thomson X-Ray Polarimeter	76-023C-10
Evans	*Cosmic Gamma-Ray Detector	76-023C-25
Feldman	1175- to 1800-Å Solar UV Spectrometer	76-023C-09
Fritz, G.	15- to 150-keV Solar X-Ray Monitor	76-023C-01
Kreplin	1- to 8-Å Solar X-Ray Monitor	76-023C-04
Kreplin	8- to 16-Å Solar X-Ray Monitor	76-023C-05
Kreplin	44- to 60-Å Solar X-Ray Monitor	76-023C-06
Kreplin	170- to 1050-Å Solar EUV Monitor	76-023C-07
Kreplin	1080- to 1350-Å Solar UV Monitor	76-023C-08
Kreplin	0.5- to 3-Å Solar X-Ray Monitor	76-023C-12
Kreplin	2- to 10-Å Solar X-Ray Monitor	76-023C-13
Lazarus	Solar Wind Spectrometer	76-023C-15

*Not included in Scientific Contact Section; experiment not related to magnetospheric physics.

Solrad 11A (continued)

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Meekins	Continuum (8.8Å) and Magnesium (9.17 and 8.42Å) Monitor	76-023C-03
Meekins	Bragg X-Ray Polarimeter	76-023C-11
Smathers	X-Ray Monitor (0.1-1.6, 0.5-3, 1-4 Å)	76-023C-02
Vampola	Solar Flare Electrons	76-023C-22
Weller, Jr.	Geocoronal/Extraterrestrial EUV - Detector 1	76-023C-18
Weller, Jr.	Geocoronal/Extraterrestrial EUV - Detector 2	76-023C-19
Yates	Proton-Alpha Telescope	76-023C-20
Yates	Low-Energy Proton Spectrometer	76-023C-21

Solrad 11B
(IO; 10/31/79)

International Designation: 1976-023D

Launch date: March 15, 1976
Orbit type: Geocentric

Epoch (M/D/Y):	6/30/76	6/29/77	12/30/77	4/29/78	6/29/79
Period (min):	7116.7	7330.3	7333.7	733.9	7344.2
Inclination:	25.6°	26.9°	27.5°	27.7°	28°
Perigee (km alt):	115,721	118,021	117,777	117,855	117,774
Apogee (km alt):	116,645	119,220	119,543	119,560	119,785

Mr. Robert W. Kreplin
Code 7175
Space Science Division
U. S. Naval Research Laboratory
4555 Overlook Avenue, SW
Washington, DC 20375 U.S.A.

Telephone: (202) 767-2603
Telex: 892632 TCC NRL WSH

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Blake	Solar Protons	76-023D-14
Blake	Omnidirectional Protons	76-023D-17
Blake	Antisolar Protons	76-023D-23
Byram	Stellar/Auroral X Rays	76-023D-16
Doschek	Thomson X-Ray Polarimeter	76-023D-10
Evans	*Cosmic Gamma-Ray Detector	76-023D-25
Feldman	1175- to 1800-Å Solar UV Spectrometer	76-023D-09
Fritz, G.	15- to 150-keV Solar X-Ray Monitor	76-023D-01
Kreplin	1- to 8-Å Solar S-Ray Monitor	76-023D-04
Kreplin	8- to 16- Å Solar X-Ray Monitor	76-023D-05
Kreplin	44- to 60-Å Solar X-Ray Monitor	76-023D-06
Kreplin	170- to 1050-Å Solar EUV Monitor	76-023D-07
Kreplin	1080- to 1350-Å Solar UV Monitor	76-023D-08
Kreplin	0.5- to 3-Å Solar X-Ray Monitor	76-023D-12
Kreplin	2- to 10-Å Solar X-Ray Monitor	76-023D-13
Lazarus	Solar Wind Spectrometer	76-023D-15

*Not included in Scientific Contact Section; experiment not related to magnetospheric physics.

Solrad 11B (continued)

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Meekins	Continuum (8.8Å) and Magnesium (9.17 and 8.42Å) Monitor	76-023D-03
Meekins	Bragg X-Ray Polarimeter	76-023D-11
Smathers	X-Ray Monitor (0.1-1.6, 0.5-3, 1-4Å)	76-023D-02
Vampola	Solar Flare Electrons	76-023D-22
Weller, Jr.	Geocoronal/Extraterrestrial EUV - Detector 1	76-023D-18
Weller, Jr.	Geocoronal/Extraterrestrial EUV - Detector 2	76-023D-19
Yates	Proton-Alpha Telescope	76-023D-20
Yates	Low-Energy Proton Spectrometer	76-023D-21

SRATS*
(Taiyo)
(IO; 3/14/77)

International Designation: 1975-014A

Launch date: February 24, 1975
Orbit type: Geocentric

Epoch (M/D/Y):	6/30/76	12/13/76
Period (min):	117.7	116.9
Inclination:	31.5°	31.6°
Perigee (km alt):	247	252
Apogee (km alt):	2907	2825

Prof. K. Hirao
Institute of Space and Aero-
nautical Science
University of Tokyo
4-6-1 Komaba, Meguro-Ku
Tokyo 153
Japan

Telephone: 03-467-1111 Ext. 249
Telex: J24550 SPACE TKY

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Hirao	Electron Temperature	75-014A-05
Matsuoka	Solar X-Ray Proportional Counter	75-014A-01
Miyazaki	Plasma Diagnosis	75-014A-06
Oshio	Hydrogen Lyman-Alpha	75-014A-02
Oya	Electron Density Measurement	75-014A-04
Tohmatsu	Geocoronal UV Glow and Earth UV Albedo	75-014A-03

*Because of degradation of solar cells, reduced data acquisition rate
by September 1976.

International Designation: 1979-017A

Launch date: February 24, 1979

Orbit type: Geocentric

Epoch (M/D/Y):	2/24/79	7/01/79
Period (min):	96.3	96.2
Inclination:	97.9°	97.6°
Perigee (km alt):	560	560
Apogee (km alt):	600	598

Dr. John R. Stevens
Aerospace Corporation
Bldg. 100 Mail Station 2049
P. O. Box 92957
Los Angeles, CA 90009 U.S.A.

Telephone: (213) 648-6230
TWX: 9103486640
AERO-CORP ELS

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Bowyer	Extreme UV Spectrometer	79-017A-04
Imhof	Gamma-Ray Spectrometer	79-017A-01
Kreplin	Solar X-Ray Spectrometer	79-017A-03
Michels	Solar Wind Monitor	79-017A-02
Pepin	*Preliminary Aerosol Monitor	79-017A-07
Shulman	*X-Ray Monitor	79-017A-06
Vancour	High Latitude Particle Spectrometer	79-017A-05

*Not included in Scientific Contact Section; experiment not related to magnetospheric physics.

International Designation: 1979-007A

Launch date: January 30, 1979
Orbit type: Geocentric

Epoch (M/D/Y):	2/01/79*	7/01/79**
Period (min):	794.8	1416.2
Inclination:	27.4°	7.6
Perigee (km alt):	184	27,246
Apogee (km alt):	43,905	43,549

Dr. Brian Ledley
Code 694
NASA/Goddard Space Flight Center
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-6259
Telex: 89675 NASCOM GBLT

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Aggson	Electric Field Detector	79-007A-05
Blake	Energetic Proton Detector	79-007A-14
Cohen	Electron/Ion Guns	79-007A-07
Fennell	Sheath Field Electrostatic Analyzers	79-007A-06
Hall	Quartz Crystal Microbalances in Retarding Potential Analyzers	79-007A-03
Hall	Thermal Control Sample Monitor	79-007A-04
Hardy	Rapid Scan Particle Detector	79-007A-12
Johnson	Energetic Ion Spectrometer	79-007A-13
Koons	Charging Electrical Effects Analyzer	79-007A-02
Ledley	Vector Fluxgate Magnetic Field Monitor	79-007A-08
Mizera	Spacecraft Surface Potential Monitor	79-007A-01
Reagan	High-Energy Particle Detector	79-007A-15
Reasoner	Light Ion Mass Spectrometer	79-007A-09
Sagalyn	Plasma Probe	79-007A-10
Whipple	Charged Particle Detector	79-007A-11

*2/01/79: Transfer orbit parameters.

**7/01/79: Typical final orbit parameters placed in final orbit on
2/06/79.

International Designation: 1975-114B

Launch date: 12/04/75
Orbit type: Geocentric

Epoch (M/D/Y):	12/08/75	10/30/77	3/30/78
Period (min):	102.95	96.18	91.92
Inclination:	96.3°	96.3°	96.2°
Perigee (km alt):	236	211	194
Apogee (km alt):	1558	942	543

Dr. John R. Stevens
Aerospace Corporation
Bldg. 125 Rm. 1255
P. O. Box 92957
Los Angeles, CA 90009 U.S.A.

Telephone: (213) 648-6105
TWX: 9103486640
AERO-CORP ELS

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Fennell	Proton Time-of-Flight and Proton-Alpha Counters	75-114B-14
Marcos	Triaxial Piezoelectric Accelerometer	75-114B-10
McIsaac	Cold and Hot Cathode Magnetron Gages	75-114B-01
Michael	Spherical Electron Sensor and Planar Aperture Ion Sensors	75-114B-12
Philbrick	RF Quadrupole Mass Spectrometer	75-114B-02
Rice	Cold Cathode Magnetron Gage	75-114B-03
Rice	Electrostatic Analyzer (2 to 300 eV)	75-114B-13
Rice	Retarding Potential Analyzer	75-114B-11
Shuman	Magnetometer	75-114B-08
Smiddy	Electric Field Observations	75-114B-07
Vampola	Electron Magnetic Spectrometer	75-114B-06
Vancour	Electrostatic Analyzer (1 to 20 keV)	75-114B-09
Yates	Low-Energy Proton Spectrometer	75-114B-04
Yates	Proton-Alpha Telescope	75-114B-05

International Designation: 1976-065B

Launch date: July 8, 1976
Orbit type: Geocentric

Epoch (M/D/Y):	7/08/77	12/30/77	6/29/79
Period (min):	176.6	174.3	164.8
Inclination:	97.5°	97.5°	97.4°
Perigee (km alt):	246	239	232
Apogee (km alt):	7856	7686	6930

Dr. John R. Stevens
Aerospace Corporation
Bldg. 125 Rm. 1255
P. O. Box 92957
Los Angeles, CA 90009 U.S.A.

Telephone: (213) 648-6105
TWX: 9103486640
AERO-CORP ELS

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Fennell	Ion-Electron Spectrometer	76-065B-08
Koons	ELF/VLF Receiver	76-065B-06
Michael	Spherical Electron Sensor and Planar Aperture Ion Sensors	76-065B-05
Mozer	AC and DC Electric Fields	76-065B-01
Sharp	Ion and Electron Spectrometer	76-065B-02
Vampola	Energetic Particle Spectrometer	76-065B-07
Yates	Low-Energy Proton Spectrometers	76-065B-03
Yates	Proton-Alpha Telescope	76-065B-04

TIP 1
(TRIAD)

International Designation: 1972-069A

Launch date: September 2, 1972
Orbit type: Geocentric

Epoch (M/D/Y):	6/30/76	10/30/76	8/30/76	12/30/77	4/29/78
Period (min):	100.6	100.6	100.6	100.6	100.6
Inclination:	90.0°	90.0°	90.0°	90.0°	90.0°
Perigee (km alt):	737	739	738	737	738
Apogee (km alt):	841	840	840	840	839

Epoch (M/D/Y):	6/29/79	12/30/79
Period (min):	100.5	100.5
Inclination:	90.0°	90.1°
Perigee (km alt):	736	730
Apogee (km alt):	836	830

Dr. Thomas A. Potemra
Space Physics and Instrumentation Group
Applied Physics Laboratory/
Johns Hopkins University
Johns Hopkins Road
Laurel, MD 20810 U.S.A.

Telephone: (301) 953-7100
Ext. 2905
Telex: 89548 APL JHU LAUR

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Potemra	Triaxial Fluxgate Magnetometer	72-069A-01

International Designation: 1978-096A

Launch date: October 13, 1978

Orbit type: Geocentric

Epoch (M/D/Y): 05/20/79

Period (min): 102.1

Inclination: 98.945°

Perigee (km alt): 843.5

Apogee (km alt): 874

Mr. Herbert Sauer

Code R43

Space Environment Laboratory

NOAA Environmental Research

Laboratories

Boulder, CO 80303 U.S.A.

Telephone: (303) 497-3681

Telex: 45897 SOLTERWARN BDR

Scientific Contact

Experiment

NSSDC ID

Sauer

Space Environmental Monitor

78-096A-04

Vela 5A
(00; 3/00/80)

International Designation: 1969-046D

Launch date: May 23, 1969
Orbit type: Geocentric

Epoch (M/D/Y):	6/30/76	8/30/77	12/30/77	4/29/78	6/29/79
Period (min):	6701.7	6686.5	6697.4	6695.2	6695.2
Inclination:	34.9°	46.4°	47.2°	47.4°	47.7°
Perigee (km alt):	110,829	106,394	106,117	105,463	105,464
Apogee (km alt):	111,910	115,988	116,521	112,124	117,124

Dr. Ray Klebesadel
P-4 Space Physics Group
Mail Stop 436
Los Alamos Scientific Laboratory
Los Alamos, NM 87545 U.S.A.

Telephone: (505) 667-4944
TWX 9109881773
LOS ALA SCI LAB

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Asbridge	*Neutron Detector	69-046D-07
Bame	Solar Wind	69-046D-05
Fehlau	Solar X-Ray Detectors, 0.5 to 3.0, 1 to 8, 1 to 16, 44 to 60Å	69-046D-02
Klebesadel	*Gamma-Ray Astronomy	69-046D-08

*Not included in Scientific Contact Section; experiment not related to magnetospheric physics. Neutron Detector is sensitive to protons above 25 MeV but many other solar proton monitors are available.

Vela 5B*
(OO; 3/00/80)

International Designation: 1969-046E

Launch date: May 23, 1969
Orbit type: Geocentric

Epoch (M/D/Y):	6/30/76	2/27/77	12/30/77	4/29/78	6/29/79
Period (min):	6695.1	6695.1	6695.1	6708.2	6706.8
Inclination:	34.9°	34.9°	34.9°	47.4°	47.5°
Perigee (km alt):	110,639	110,639	110,639	99,953	104,346
Apogee (km alt):	111,945	111,945	111,945	122,938	118,512

Dr. Ray Klebesadel
P-4 Space Physics Group
Mail Stop 436
Los Alamos Scientific Laboratory
Los Alamos, NM 87545 U.S.A.

Telephone: (505) 667-4944
TWX 9109881773
LOS ALA SCI LAB

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Asbridge	**Neutron Detector	69-046E-07
Bame	Solar Wind	69-046E-05
Belian	**Cosmic X-Rays	69-046E-06
Higbie	Solar Particle Telescopes	69-046E-03
Higbie	Electron Detectors	69-046E-04
Klebesadel	**Gamma-Ray Astronomy	69-046E-08

*Data acquisition rate for this spacecraft is substandard.

**Not included in Scientific Contact Section; experiment not related to magnetospheric physics.

Vela 6A*
(00; 3/00/80)

International Designation: 1970-027A

Launch date: April 8, 1970
Orbit type: Geocentric

Epoch (M/D/Y):	6/30/76	2/27/77	12/30/77	4/29/78	6/29/79
Period (min):	6701.0	6701.0	6704.2	6697.9	6697.9
Inclination:	43.4°	43.4°	45.1°	45.5°	45.5°
Perigee (km alt):	111,135	111,135	110,039	109,776	109,776
Apogee (km alt):	111,587	111,587	112,757	112,874	112,874

Epoch (M/D/Y): 12/30/79
Period (min): 6689.7
Inclination: 47.8°
Perigee (km alt): 109,211
Apogee (km alt): 113,246

Dr. Ray Klebesadel
P-4 Space Physics Group
Mail Stop 436
Los Alamos Scientific Laboratory
Los Alamos, NM 87545 U.S.A.

Telephone: (505) 667-4944
TWX 9109881773
LOS ALA SCI LAB

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Asbridge	**Neutron Detector	70-027A-07
Fehlau	Solar X-Ray Detectors, 0.5 to 3.0 1 to 8, 1 to 16, 44 to 60 Å	70-027A-02
Higbie	Solar Particle Telescopes	70-027A-03
Higbie	Electron Detectors	70-027A-04
Klebesadel	**Gamma-Ray Astronomy	70-027A-08

*IMS-related experiments have substandard data acquisition rates on this spacecraft.

**Not included in Scientific Contact Section; experiment not related to magnetospheric physics.

Vela 6B*
(OO; 3/00/80)

International Designation: 1970-027B

Launch date: April 8, 1970
Orbit type: Geocentric

Epoch (M/D/Y):	6/30/76	2/27/77	12/30/77	4/29/78	6/29/78
Period (min):	6698.1	6698.1	6696.6	6696.4	6697.5
Inclination:	43.3°	43.3°	45.0°	45.5°	45.5°
Perigee (km alt):	111,068	111,068	109,726	109,448	109,448
Apogee (km alt):	111,587	111,587	112,894	113,167	113,167

Epoch (M/D/Y):	12/30/79
Period (min):	6701.1
Inclination:	46.6°
Perigee (km alt):	109,246
Apogee (km alt):	113,478

Dr. Ray Klebesadel
P-4 Space Physics Group
Mail Stop 436
Los Alamos Scientific Laboratory
Los Alamos, NM 87545 U.S.A.

Telephone: (505) 667-4944
TWX 9109881773
LOS ALA SCI LAB

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Asbridge	**Neutron Detector	70-027B-07
Higbie	Solar Particle Telescopes	70-027B-03
Higbie	Electron Detectors	70-027B-04

*IMS-related experiments have substandard data acquisition rates on this spacecraft.

**Not included in Scientific Contact Section; experiment not related to magnetospheric physics.

International Designation: 1978-084A

Launch date: September 9, 1978 (Venus encounter on December 25,
1978)

Orbit type: Heliocentric

Dr. O.L. Vaisberg
Space Research Institute
U.S.S.R. Academy of Sciences
Profsoyuznaya Ulitsa 88
Moscow V-485, 117810
U.S.S.R.

Telephone: 333-31-22
Telex: 7523 SOLTER SU

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Estulin/Vedrenne	*Gamma-Ray Spectrometer	78-084A-01
Gringauz	Retarding Potential Traps	78-084A-02
Kurt/Bertaux	UV Grating Monochromator	78-084A-03
Logachev	Electron and Proton Spectrometers	78-084A-04
Mazets	*Gamma-Ray Burst Detectors	78-084A-05
Pisarenko	Proton Spectrometer	78-084A-06
Savich	Two-frequency Transmitters	78-084A-07
Vaisberg	Solar Wind Plasma Detectors	78-084A-08

*Not included in Scientific Contact Section; experiment not related to magnetospheric physics.

International Designation: 1978-086A

Launch date: September 14, 1978 (Venus encounter on December 21,
1978)

Orbit type: Heliocentric

Dr. O.L. Vaisberg
Space Research Institute
U.S.S.R. Academy of Sciences
Profsoyuznaya Ulitsa 88
Moscow V-485, 117810
U.S.S.R.

Telephone: 333-31-22
Telex: 7523 SOLTER SU

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Estulin/Vedrenne	*Gamma-Ray Spectrometer	78-086A-01
Gringauz	Retarding Potential Traps	78-086A-02
Kurt/Bertaux	UV Grating Monochromator	78-086A-03
Logachev	Electron and Proton Spectrometers	78-086A-04
Mazets	*Gamma-Ray Burst Detectors	78-086A-05
Pisarenko	Proton Spectrometer	78-086A-06
Savich	Two-frequency Transmitters	78-086A-07
Vaisberg	Solar Wind Plasma Detectors	78-086A-08

*Not included in Scientific Contact Section; experiment not related to magnetospheric physics.

International Designation: 1976-059A

Launch date: June 26, 1976
Orbit type: Geostationary

Epoch (M/D/Y):	7/25/76	2/28/77
Period (min):	1436	1436
Inclination:	0°	0°
Longitude:	35°W	70°W
Drift/day:	0°	0°

Dr. Paul R. Higbie
P-4 Space Physics Group
Mail Stop 436
Los Alamos Scientific Laboratory
Los Alamos, NM 87545 U.S.A.

Telephone: (505) 667-4040
TWX: 9101881773
LOS ALA SCI LAB

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Higbie	Charged Particle Analyzer	76-059A-01

International Designation: 1977-007A

Launch date: February 6, 1977
Orbit type: Geostationary

Epoch (M/D/Y): 2/22/77
Period (min): 1436
Inclination: 0°
Longitude: 132°W
Drift/day: 0°

Dr. Paul R. Higbie
P-4 Space Physics Group
Mail Stop 436
Los Alamos Scientific Laboratory
Los Alamos, NM 87545 U.S.A.

Telephone: (505) 667-4040
TWX: 9101881773
LOS ALA SCI LAB

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Higbie	Charged Particle Analyzer	77-007A-01

International Designation: 1979-053A

Launch Date: June 10, 1979
Orbit Type: Geostationary

Epoch (M/D/Y): 4/29/80
Period (min): 1436.5
Inclination: 1.9°
Longitude: not available
Drift/Day: not available

Dr. Paul R. Higbie
P-4 Space Physics Group
Mail Stop 436
Los Alamos Scientific Laboratory
Los Alamos, NM 87545 U.S.A.

Telephone: (505) 667-4040
TWX: 9101881773
LOS ALA SCI LAB

Scientific Contact

Experiment

NSSDC ID

Higbie

Charged Particle Analyzer

79-053A-01

Scientific Contacts

Afonin	Gdalevich	Krimigis
Aggson	Geiss	Kroehl
Alexander	Gendrin	Kubo
Anderson	Gloeckler	Kulagin
Anger	Gombosi	Kunow
Aoyama	Gortchakov	Kuriki
Arnoldy	Grigoryeva	Kurt
Bame	Gringauz	Langel
Barrington	Gurnett	Lazarus
Barth	Hall	Ledley
Beghin	Hanson	Lickin
Bertaux	Hardy	Likhter
Blake	Hartz	Logachev
Bosqued	Harvey	Lutsenko
Bowyer	Hays	Maier
Brace	Heath	Marcos
Bridge	Heckman	Mariani
Brinton	Hedin	Masley
Byram	Heikkila	Matsuoka
Champion	Helliwell	Matuura
Cline	Heppner	McCracken
Cohen	Higbie	McDiarmid
Coleman	Hinteregger	McDonald
Courtes	Hirao	McIlwain
Darosa	Hoffman, J.	McIsaac
Davies	Hoffman, R.	Meekins
Doering	Hovestadt	Melzner
Dolginov	Hultqvist	Meyer
Donnelly	Hynds	Michael
Doschek	Imhof	Michels
Egidi	Iwamoto	Miyazaki
Ejiri	Johnson	Mizera
Eroshenko	Joselyn	Mori
Eshleman	Kacharov	Morse
Fan	Kaneda	Mozer
Fehlau	Kawashima	Mukai
Feldman	Keppler	Nakamura
Fennell	Kimura	Ness
Fischer	Kohno	Neubauer
Frank	Koons	Nier
Freeman	Korth	Ogilvie
Fritz, G.	Kotaki	Oshio
Fritz, T.	Kovalev	Oya
Fugono	Kreplin	Oyama

Scientific Contacts (concluded)

Paschmann
Paulikas
Pedersen
Petit
Philbrick
Pisarenko
Potemra
Reagan
Reasoner
Rice
Rosenbauer
Rothwell
Russell
Sagalyn
Sauer
Savich
Scarf
Schutte
Serafimov
Severny
Sharp
Shepherd
Shuman
Simpson
Skrebtsov
Smathers
Smiddy
Smilauer
Smith
Snyder

Sonett
Sosnovets
Spencer
Steinberg
Stone
Teltsov
Tohmatsu
Trainor
Treger
Triska
Tulupov
Ungstrup
Vaisberg
Valnicek
Vampola
Van Allen
Vancour
von Rosenvinge
Webber
Weller
Whipple
Whitteker
Wilken
Williams
Winckler
Wolfe
Wrenn
Yates
Yoshino
Zertsalov

AFONIN

Dr. V. V. Afonin, Space Research Institute, U.S.S.R. Academy of
Sciences, Profsoyuznaya Ulitsa 88, Moscow V-485, 117810, U.S.S.R.
Telephone: 333-31-22 Telex: 7523 SOLTER SU

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Cosmos 900	Flat Retarding Potential Analyzer (IO; 10/11/79)	77-023A-01
Cosmos 900	*High Frequency Electron Temperature Probe (IO; 10/11/79)	77-023A-02

*Also under Smilauer.

AGGSON

Dr. Thomas L. Aggson, Code 696, NASA/Goddard Space Flight Center,
Greenbelt, MD 20771 U.S.A.
Telephone: (301) 344-5726 Telex: 89675 NASCOM GBLT

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
IMP-J	*Electrostatic Fields DC electric field vector with time resolution of four spacecraft spin periods E component of VLF spectra from 2 to 1000 Hz in 7 channels	73-078A-11
STP P78-2	Electric Field Detector DC electric fields from 0.1 to 20 millivolts/M AC fields (3 to 200 Hz) from 1 to 100 microvolts/M	79-007A-05

*Intermittent since 10/76.

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
IMP-J	Gurnett	73-078A-12
ISEE 1	Heppner	77-102A-11

ALEXANDER

Mr. Joseph K. Alexander, Jr., Code 695, NASA/Goddard Space Flight
Center, Greenbelt, MD 20771 U.S.A.
Telephone: (301) 344-5461 Telex: 89675 NASCOM GBLT

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
RAE-B	Rapid-Burst Receivers (IO; 4/26/77) Magnetospheric noise bursts from 0.025 to 13 MHz in 32 channels	73-039A-02

Prof. Kinsey A. Anderson, Space Sciences Laboratory, University of
 California, Berkeley, Berkeley, CA 94720 U.S.A.
 Telephone: (415) 642-1313 TWX: 9103667945 UC SPACE BERK

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISEE 1	*Electrons and Protons	77-102A-10
ISEE 2	Electrons and Protons	77-102B-08
	Electrons at 2 and 6 keV and from 8 to 200 keV in 2 channels	
	Protons at 2 and 6 keV and from 8 to 380 keV in 3 channels	
ISEE 3	Interplanetary and Solar Electrons (IO; 11/22/70)	78-079A-09
	Electrons from 2 to 18 keV in 8 or 16 channels with $\Delta E/E = 0.15$; from 15 to 90 keV in 4 channels and above 90 keV; from 15 to 300 keV in 16 channels with $\Delta E/E = 0.2$	
	Protons from 15 to 90 keV in 4 channels and above 90 keV	
	Charged particles from 0.015 to 19 MeV in 32 channels with $\Delta E/E = 0.25$, from 0.2 to 40 MeV in 16 channels with $\Delta E/E = 0.4$, and above 200 keV	
ISEE 3	X- and Gamma-Ray Bursts	78-079A-14
	X rays from 5 to 14 keV in 9 channels	
	Gamma rays from 0.012 to 1.25 MeV in 16 channels	

*Light scattered into solid state detectors; therefore, increased back-ground rates affect higher energy levels.

ANGER

Dr. Clifford D. Anger, Department of Physics, University of Calgary,
Calgary, Alberta T2N 1N4, Canada
Telephone: (403) 284-6340 Telex: 03821545 UNIV CLGY CGY

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISIS 2	3914- and 5577-Å Photometer	71-024A-11
	Auroral emissions at $3915 \pm 13\text{Å}$ and $5581 \pm 9\text{Å}$	

AOYAMA

Dr. I. Aoyama, Laboratory of Space Science, Tokai University, Tokyo,
Japan

Telephone:

Telex:

Spacecraft

Experiment

NSSDC ID

Jikiken

Vector Fluxgate Magnetometer \pm 247,
1370, 8282, and 48,640 gammas sampled
every 1 or 4 s

78-087A-05

ARNOLDY

Dr. Roger L. Arnoldy, Space Science Center, University of New Hampshire,
Demeritt Hall, Durham, NH 03824 U.S.A.

Telephone: (603) 862-2751 Telex: 5102974441 UNIV NH LIB
(SPACE SCIENCE CENTER)

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ATS 6	*Electron Proton Electrostatic Analyzer (00; 3/31/78)	74-039A-03

*Turned on 6/28/77 for continuous operation in the pitch mode only.

BAME

Dr. Samuel J. Bame, P-4 Space Physics Group, Mail Stop 436, Los Alamos
Scientific Laboratory, Los Alamos, NM 87545 U.S.A.
Telephone: (505) 667-5308 TWX: 9109881773 LOS ALA SCI LAB

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
IMP-H	Solar Plasma Electrostatic Analyzer (OO; 10/31/78)	72-073A-10
IMP-J	Solar Plasma Electrostatic Analyzer	73-078A-10
	Positive ions in the solar wind from 0.2 to 5 keV and in the magnetosheath and magnetotail from 0.2 to 20 keV	
	Electrons in the solar wind and magnetosheath from 5 eV to 1 keV and in the magnetotail from 5 eV to 20 keV	
ISEE 1	Fast Plasma Probes and Solar Wind Ion Probe (P; 1/00/79)	77-102A-01
	Protons from 50 eV to 40 keV and electrons from 5 eV to 20 keV in 16 channels	
	Ions from .184 to 6.8 keV/Q in 56 channels	
ISEE 3	Solar Wind Plasma Probe (P; 3/19/80)	78-079A-01
	Electrons from 8.5 eV to 1.14 keV in 16 channels from 1.6 to 220 eV	
	Ions from 0.237 to 10.47 keV/Q in 64 channels with $\frac{\Delta E}{Q} = 0.063$ E/Q	

BAME (continued)

Vela 5A Solar Wind (OO; 3/00/80) 69-046D-05

Electrons from 7.5 eV to 18.5 keV
and positive ions from 0.12 to
5 keV/Q

Magnetotail protons and electrons
in energy range 20 eV to 33 keV
and solar wind heavy ions from
1 to 8.3 keV/Q

Detector field of view 6° by 100°

Vela 5B Solar Wind (OO; 3/00/80) 69-046E-05

Magnetotail protons and electrons
in energy range 0.02 to 33 keV
and solar wind heavy ions from 1
to 8.3 keV/Q

Detector field of view 6° by 100°

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
ISEE 2	Paschmann	77-102B-01

BARRINGTON

Dr. Ronald E. Barrington, Communications Research Centre, Department of Communications, Shirley Bay, P. O. Box 11490, Station 'H', Ottawa, Ontario, K2H 8S2, Canada

Telephone: (613) 596-9311

Telex: 0534143 CRC SATCON OTT

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISIS 1	VLF Receiver	69-009A-03
ISIS 2	VLF Receiver	71-024A-03

VLF noise intensity from 0.05 to 30 kHz and a resonance exciter that swept from 0 to 9.5 kHz

BARTH

Dr. Charles A. Barth, Laboratory for Atmospheric and Space Physics,
University of Colorado, Boulder, CO 80302 U.S.A.
Telephone: (303) 492-7502 TWX: 910943441 LASP UNIV COLO

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
AE-C	Ultraviolet Nitric Oxide (IO; 12/12/78)	73-101A-13
AE-D	Ultraviolet Nitric Oxide (IO; 1/29/76)	75-096A-11

Airglow at $2150 \pm 6\text{\AA}$

BEGHIN

Dr. Christian Beghin, CRPE/CNRS, Avenue de la Recherche Scientifique,
45045 Orleans, France

Telephone: (38) 63.00.86 Telex: 760600 CNETORL

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ESA-GEOS 1	Wave Field Impedance (Part of S-300) (OO; 6/23/78)	77-029A-22
ESA-GEOS 2	Wave Field Impedance (Part of S-300)	78-071A-11

Self- and mutual-impedance mea-
surements between experiment
77-029A-07 and 77-029A-10 probes
from 0.2 to 76 kHz

BERTAUX

Dr. J. L. Bertaux, CNRS, Service d'Aeronomie, 91370 Verrieres-les-Buisson, Essonne, France

Telephone:

Telex:

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Prognoz 5	*Interplanetary UV Emission Photometer (IO; 7/20/77)	76-112A-08
Prognoz 6	*Interplanetary UV Emission Photometer (IO; 09/00/78)	77-093A-08
	304-Å He+ line with thin film filter	
	584-Å He solar line with thin film filter	
	584-Å He line with thin film filter	
	1216-Å H Lyman α line with absorption cell	
Venera 11	UV Grating Monochromator	78-084A-03
Venera 12	UV Grating Monochromator	78-086A-03
	Spectral lines at 304, 584, 736, 869, 1048, 1216, 1300, 1356, and 1500Å	

*Also under Kurt.

BLAKE

Dr. J. Bernard Blake, Space Sciences Laboratory, Bldg. A6, Mail
Station 2437, Aerospace Corporation, P.O. Box 92957, Los Angeles, CA
90009 U.S.A.

Telephone: (213) 648-7078

TWX: 9103486640 AERO-CORP ELS

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
DMSP 5D-1/F1	Radiation Dosimeter (IO; 9/16/79) Electrons above 0.7, 0.95, 1.2, 1.9 MeV Protons 12-20, 16-24, 23-30, 30-36 MeV	76-091A-03
Solrad 11A	Solar Protons (IO; 6/12/77)	76-023C-14
Solrad 11A	Antisolar Protons (IO; 6/12/77)	76-023C-23
Solrad 11B	Solar Protons (IO; 12/00/76)	76-023D-14
Solrad 11B	Antisolar Protons (IO; 1/00/77) Protons above 2 and 10 MeV Alphas above 4.5 and 7.5 MeV Z > 3 above 3 MeV/nucleon	76-023D-23
Solrad 11A	*Omnidirectional Protons (IO; 6/12/77)	76-023C-17
Solrad 11B	Omnidirectional Protons (IO; 1/00/77) Spectra of particles of charge 1, 2, 6 to 10, 12 to 18, and above 18 above 0.5 MeV/nucleon Protons from 20 to 500 keV in 5 channels	76-023D-17
STP P78-2	Energetic Proton Detector Protons from 20 to 1000 keV and above 2 MeV	79-007A-14

*Only 60 percent sectoring by 1/18/77.

BLAKE (continued)

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
ATS 6	Paulikas	74-039A-07
Solrad 11A	Vampola	76-023C-22
Solrad 11B	Vampola	76-023D-22

BOSQUED

Dr. J. M. Bosqued, Centre d'Etudes Spatiales des Rayonnements, B.P.
4346, 31029 Toulouse Cedex, France

Telephone:

Telex:

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Prognoz 5	*Plasma Spectrometers (IO; 7/20/77)	76-112A-09
	Electrons from 3 eV to 15 keV	
	Protons from 3 eV to 15 keV	
	Positive ions from 3 eV to 4 keV with mass resolution	

*Also under Zertsalov.

BOWYER

Prof. Stuart S. Bowyer, Space Sciences Laboratory, University of
California, Berkeley, Berkeley, CA 94720 U.S.A.

Telephone: (415) 642-1648

TWX: 9103667945 UC BERK

Spacecraft

Experiment

NSSDC ID

STP P78-1

Extreme UV Spectrometer

79-017A-04

200-1200Å with 5Å resolution
over a selected 600 Å resolution
range

BRACE

Mr. Larry H. Brace, Code 961, NASA/Goddard Space Flight Center,
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-8575

Telex: 89675 NASCOM GBLT

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
AE-C	Electron Temperature and Concentration (IO; 12/12/78)	73-101A-01
AE-D	Electron Temperature and Concentration (IO; 1/29/76)	75-096A-01
AE-E	Electron Temperature and Concentration	75-107A-01
	Electron density and temperature and ion density parallel and perpendicular to spacecraft spin axis	
ISIS 1	Cylindrical Electrostatic Probe	69-009A-07
ISIS 2	Cylindrical Electrostatic Probe (IO; 3/10/78)	71-024A-07

Electron density and temperature

Prof. Herbert S. Bridge, Room 37-241, Center for Space Research,
Massachusetts Institute of Technology, Cambridge, MA 02139 U.S.A.
Telephone: (617) 253-7501 Telex: 921473 MIT CAM

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
IMP-H	Solar Plasma Faraday Cup (OO; 10/31/78)	72-073A-02
IMP-J	Solar Plasma Faraday Cup	73-078A-02
	Electrons from 17 eV to 7 keV in 8 channels	
	Ions from 50 eV to 7 keV in 8 channels	
Pioneer 6	Solar Wind Plasma Faraday Cup (P; 12/03/74)	65-105A-02
	Electrons from 90 to 1580 eV in 4 channels	
	Ions from 75 to 9485 eV/Q 14 channels	

BRINTON

Mr. Henry C. Brinton, Code 961, NASA/Goddard Space Flight Center,
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-8253

Telex: 89675 NASCOM GBLT

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
AE-C	Ion Composition and Concentration (IO; 12/12/78)	73-101A-11
AE-E	Ion Composition and Concentration	75-107A-10

Thermal positive ions from 1 to
72 amu

BYRAM

Mr. E. T. Byram, Code 7126.0, U.S. Naval Research Laboratory, 4555 Over-look Avenue, SW, Washington DC 20375 U.S.A.

TELEPHONE: (202) 767-2755

Telex: 892632 TCC NRL WSH

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Solrad 11A	*Stellar/Auroral X Rays (IO; 6/12/77)	76-023C-16
Solrad 11B	Stellar/Auroral X Rays (IO; 12/00/76)	76-023D-16

X-rays from 1 to 8 Å

*Only 60 percent sectoring by 1/18/77.

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
Solrad 10	Kreplin	71-058A-01

CHAMPION

Dr. Kenneth S. W. Champion, Code LKB, USAF Geophysics Laboratory,
Hanscom AFB, Bedford, MA 01731 U.S.A.

Telephone: (617) 861-3033

Telex: None

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
AE-C	Atmospheric Drag (IO; 12/12/78)	73-101A-02
AE-D	Atmospheric Drag (IO; 1/29/76)	75-096A-02
AE-E	Atmospheric Drag	75-107A-02

Atmospheric density measurements
from 120 to 400 km

CLINE

Dr. Thomas L. Cline, Code 661, NASA/Goddard Space Flight Center,
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-4375

Telex: 89675 NASCOM GBLT

Spacecraft

Experiment

NSSDC ID

IMP-H

Study of Cosmic Ray, Solar and
Magnetospheric Electrons (OO; 10/31/78)

72-073A-13

Electrons and positrons from
0.05 to 2 MeV

Dr. Herbert A. Cohen, Code PHG, USAF Geophysics Laboratory,
Hanscom AFB, Bedford, MA 01731 U.S.A.
Telephone: (617) 861-3107 Telex: None

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
STP P78-2	Electron/Ion Guns (P; 10/25/79)	79-007A-07

Ion Beam - either 1000 or 2000 VDC
and intensities (ma) - 0.3, 0.5, 1.0, 1.5,
and 2.0.

Electron Beam - (volts) 50, 150, 300, 500,
1500, 3000.
- (ma): 0.001, 0.01, 0.10,
1.0, 6.0, and 13.

COLEMAN

Prof. Paul J. Coleman, Jr., Institute of Geophysics, University of California, Los Angeles, 405 Hilgard Avenue, Los Angeles, CA 90024 U.S.A.

Telephone: (213) 825-1776

TWX: 9103426973 UCLA LIB WLA

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ATS 6	*Magnetometer (00; 3/31/78)	74-039A-02

Vector magnetic field -512 gammas
to +496 gammas with 1/16-gamma
resolution from 0.001 to 1 Hz

*Sensor parallel to Earth's rotational axis failed on 9/08/75.

Status of Data Analysis: All data have been routinely processed up through 9/08/75. Data acquired after that date are being processed on request only.

COURTES

Dr. G. C. Courtes, Observatoire de Marseille, 2 Place le Verrier
13 Marseille, France

Telephone:

Telex:

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Prognoz 6	*UV Emission Scanning Spectrometer (IO; 9/00/78)	77-093A-10
	*UV Emission Scanning Spectrometer 1100-1900 Å in 53 channels	78-101A-10
Prognoz 7	*UV Emission Scanning Spectrometer (IO; 6/00/79)	78-101A-10

*Also under Severny.

DAROSA

Prof. A. V. Darosa, Radio Science Laboratory, Stanford University,
Stanford, CA 94305 U.S.A.

Telephone: (415) 497-3672

TWX: 9103731787 STANUNVLIB PLA

Spacecraft

Experiment

NSSDC ID

ATS 5

Radio Beacon (00; 3/03/76)

69-069A-12

Coherent frequencies 137.350
and 412.058 MHz

Dr. Kenneth Davies, Code R43, Space Environment Laboratory, NOAA
 Environmental Research Laboratories, Boulder, CO 80302 U.S.A.
 Telephone: (303) 497-3569 Telex: 45897 SOLTERWARN BDR

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ATS-6	*Radio Beacon (P; 12/03/76)	74-039A-09

Three coherent carrier frequencies
 of 40.0160, 140.056, and 360.1440 MHz

*Due to side lobe interference the radio beacon has been operated intermittently until the latter part of 1976; it is now operated nearly continuously. During the first year there were 5 stations associated with NOAA/Boulder: Table Mountain, Elbert, and Fort Morgan, CO; Bozeman, MN; and Dallas, TX. During the second year observations were made from Otty, India. With ATS 6 reaching 140°W in Dec. 1976, observations are being made from Alcorn State U., U of Hawaii; NEL in San Diego, CA; and Table Mountain, CO.

Status of Data Analysis (as of 4/77): All data from Table Mountain during the first year have been processed and those from Elbert and Fort Morgan will be completed by June 1977. Max-Planck-Inst./Lindau is presently processing Bozeman and Dallas data. Selected days from these stations will be processed in Boulder. The data from Otty consisted of only 4 months of digital data; this is just being received from India and priority processing will begin. The remainder of data from Otty is on strip charts and will be reduced by the researchers at Otty.

DOERING

Mr. J. P. Doering, Department of Chemistry, Johns Hopkins University,
Charles and 34th Streets, Baltimore, MD 21218 U.S.A.
Telephone: (301) 338-7445 TWX: 7102341090 JHU LIBRARY

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
AE-C	Photoelectron Spectrometer (IO; 12/12/78)	73-101A-03
AE-D	Photoelectron Spectrometer (IO; 1/29/76)	75-096A-03
AE-E	Photoelectron Spectrometer	75-107A-03

Thermospheric photoelectron flux
from 2 to 500 eV

Primary electron flux from 50 to
500 eV

DOLGINOV

Dr. Sh. Sh. Dolginov, IZMIRAN, P/O Academgorodok, Moscow Region,
U.S.S.R.

Telephone: 232-19-21

Telex: 7523 SOLTER SU

Spacecraft

Experiment

NSSDC ID

Prognoz 7

Three-Axis Fluxgate Magnetometers
(IO; 6/00/79)

78-101A-04

Vector magnetic fields from 1 to
1200 gammas with 0.5-gamma resolution

DONNELLY

Dr. Richard F. Donnelly, Code R43, Space Environment Laboratory, NOAA
Environmental Research Laboratories, Boulder, CO 80303 U.S.A.

Telephone: (303) 497-4100

Telex: 45897 SOLTERWARN BDR

FTS: 323-4100

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
GOES 1	*Solar X-Ray Monitor	75-100A-03
GOES 2	**Solar X-Ray Monitor	77-048A-03
GOES 3	Solar S-Ray Monitor	78-062A-03
SMS 1	†Solar X-Ray Monitor	74-033A-03
SMS 2	††Solar X-Ray Monitor	75-011A-02

Data are available on magnetic
tape in real time, and in 5-min.
averages for the preceding 32 days
from real time. Data will be pro-
cessed for archiving.

*Operated 1/16/76 to 8/10/77.

**Operated from 7/20/77.

†Operated 7/01/74 to 1/08/76; 5/18/76 to 8/16/76; 5/09/77 to 7/18/77.

††Operated 2/10/75 to 5/18/76; 8/17/76 to 5/08/77; 8/11/77 to 3/10/78;
6/01/78 to 7/03/78.

DOSCHEK

Dr. G.A. Doschek, Code 7170, U.S. Naval Research Laboratory, 4555
Overlook Avenue, SW, Washington, DC 20375 U.S.A.
Telephone: (202) 767-3527 Telex: 892632 TCC NRL WSH

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Solrad 11A	*Thomson X-Ray Polarimeter (IO; 6/12/77)	76-023C-10
Solrad 11B	Thomson X-Ray Polarimeter (IO; 12/00/76)	76-023D-10

Solar X-ray intensity and polari-
zation from 2 to 10 keV and from
10 to 50 keV

*Operated only during flares by 10/76.

EJIRI

Dr. M. Ejiri, Institute of Space and Aeronautical Science, University
of Tokyo, 4-6-1 Komaba, Meguro-Ku, Tokyo 153, Japan
Telephone: 03-467-1111 Ext. Telex: J24550 SPACE TKY

Spacecraft

Experiment

NSSDC ID

Jikiken

Impedance and Electric Fields

78-087A-04

EROSHENKO

Dr. Ye.G. Eroshenko, IZMIRAN, P/O Academgorodok, Moscow Region,
U.S.S.R.

Telephone: 232-19-21

Telex: 7523 SOLTER SU

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Prognoz 4	Three-Axis Fluxgate Magnetometer (IO; 3/00/76)	75-122A-01
Prognoz 5	Three-Axis Fluxgate Magnetometer (IO; 7/20/77)	76-112A-01
Prognoz 6	Three-Axis Fluxgate Magnetometer (IO; 9/00/78)	77-093A-01

Vector magnetic fields from 1
to 60 gammas with 0.5-gamma
resolution.

ESHLEMAN

Prof. Von R. Eshleman, Center for Radar Astronomy, Durand 221, Stanford University, Stanford, CA 94305 U.S.A.

Telephone: (415) 497-3531

TWX: 9103731787 STANUNVLIB PLA

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Pioneer 8	Two-Frequency Beacon Receiver (IO; 1/21/78)	67-123A-03
Pioneer 9	Two-Frequency Beacon Receiver	68-100A-03

Frequencies of 423.3 and 49.8 MHz

FAN

Dr. Charles Y. Fan, Department of Physics, University of Arizona,
Tucson, AZ 85721 U.S.A.

Telephone: (602) 626-2778 TWX: 9109521143 AZU TUC

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Pioneer 6	Cosmic Ray Telescope	65-105A-03
	Protons above 13.9 MeV and from 0.6 to 13.9 MeV	
	Alphas above 55.6 MeV and from 2.4 to 55.6 MeV	

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
IMP-H	Gloeckler	72-073A-03
IMP-J	Gloeckler	73-078A-03
ISEE 1	Hovestadt	77-102A-05

FEHLAU

Dr. Paul E. Fehlau, Q-2, Mail Stop 562, Los Alamos Scientific
Laboratory, Los Alamos, NM 87545 U.S.A.

Telephone: (505) 667-5372

TWX: 9109881773 LOS ALA SCI LAB

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Vela 5A	Solar X-Ray Detectors, 0.5 to 3.0, 1 to 8, 1 to 16, 44 to 60Å (OO; 3/00/80)	69-046D-02
Vela 6A	Solar X-Ray Detectors, 0.5 to 3.0, 1 to 8, 1 to 16, 44 to 60Å (OO; 3/00/80)	70-027A-02

Solar X rays in the above intervals

FELDMAN

Dr. Paul D. Feldman, Department of Physics, Johns Hopkins University,
Charles and 34th Streets, Baltimore, MD 21218 U.S.A.

Telephone: (301) 338-7339

Telex: 7102341090 JHU LIBRARY

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Solrad 11A	*1175- to 1800-Å Solar UV Spectrometer (IO; 6/12/77)	76-023C-09
Solrad 11B	1175- to 1800-Å Solar UV Spectrometer (IO; 8/01/78)	76-023D-09

Solar electromagnetic spectrum from
1175 to 1800 Å with scanning channels
of 3.125 and 25 Å.

FENNELL

Dr. Joseph F. Fennell, Space Sciences Laboratory, Bldg. A6, Mail
Station 2437, Aerospace Corporation, P. O. Box 92957, Los Angeles, CA
90009 U.S.A.

Telephone: (213) 648-7075

TWX: 9103486640 AERO-CORP ELS

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
S3-2	Proton Time-of-Flight and Proton-Alpha Counters (IO; 5/01/78)	75-114B-14
	Protons from above 0.4 to above 0 MeV in 6 channels	
	Protons above 400 keV	
	Alphas from 1 to 34 MeV	
S3-3	Ion-Electron Spectrometer (OO; 5/15/79)	76-065B-08
	Electrons from 0.17 to 8.4 keV	
	Ions from 0.09 to 4.0 keV/Q	
STP P78-2	Sheath Field Electrostatic Analyzers (P; 3/30/79)	79-007A-06
	Electrons from 1 to 1000 ev	
	Protons from 1 to 1000 ev	

FRANK

Prof. Louis A. Frank, Department of Physics and Astronomy, University
of Iowa, Iowa City, IA 52242 U.S.A.

Telephone: (319) 353-5029

TWX: 9105251391 IA SUI LIB SCI

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Hawkeye 1	Low-Energy Protons and Electrons (IO; 4/28/78) Protons and electrons from 50 eV to 50 keV in 16 channels	74-040A-02
IMP-H	Measurement of Low-Energy Protons and Electrons (OO; 10/31/78) Protons and electrons from 5 eV to 50 keV in 16 channels	72-073A-04
IMP-J	Measurement of Low-Energy and Electrons	73-078A-04
ISEE 1	Hot Plasma	77-102A-03
ISEE 2	Hot Plasma (P; 1/10/78) Protons and electrons from 1 eV to 45 keV in 64 channels with $\Delta E/E = 0.16$ Electrons above 45 keV and protons above 600 keV	77-102B-03

FREEMAN

Dr. John W. Freeman, Jr., Department of Space Physics and Astronomy,
P.O. Box 1892, Rice University, Houston, TX 77001 U.S.A.
Telephone: (713) 527-8101 Telex/TWX: None
Ext. 3524

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Apollo 12 LM/ALSEP	Suprathermal Ion Detector (SIDE) (IO; 5/03/76)	69-099C-05

Ion flux in selected intervals
from 0.2 to 48.6 eV/Q with species
discrimination of masses up to
1000 amu

Higher energy particles in selected
intervals 10 to 3500 eV

Apollo 15 LM/ALSEP	Suprathermal Ion Detector (SIDE) (IO; 3/12/77)	71-063C-05
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Ions from 0.2 and 48.6 eV and
normal velocity from 0.4 to 93.5
km/s

Species discrimination up to 120
amu

Solar wind protons in selected
intervals from 10 to 3500 eV

FRITZ, G.

Dr. Gilbert G. Fritz, Code 7125.1, Space Science Division, U.S. Naval
Research Laboratory, 4555 Overlook Avenue, SW, Washington, DC 20375
U.S.A.

Telephone: (202) 767-2344

Telex: 892632 TCC NRL WSH

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Solrad 11A	15- to 150-keV Solar X-Ray Monitor (IO; 6/12/77)	76-023C-01
Solrad 11B	15- to 150-keV Solar X-Ray Monitor (IO; 12/00/76)	76-023D-01

Solar X-rays from 15 to 150 keV
in 4 channels

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
Solrad 10	Kreplin	71-058A-01

FRITZ, T.

Dr. Theodore A. Fritz, Code R43, Space Environment Laboratory, NOAA
Environmental Research Laboratories, Boulder, CO 80303 U.S.A.
Telephone: (303) 497-3669 Telex: 45897 SOLTERWARN BDR

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ATS 6	*Measurement of Low-Energy Protons (00; 3/31/78)	74-039A-01

Protons from 0.025 to 3.7 MeV
in 41 channels

Heavy ions above 125 keV/nucleon
in $Z = 2, 3 < Z < 6, 6 < Z < 8,$ and
 $Z > 9$ ranges; 9 channels

*Lower channels of one (of three) proton telescope become noisy near spacecraft local noon due to elevated temperatures.

Status of Data Analysis (as of 4/77): Routine production of microfilm plots is complete through 9/75. Spot processing on 10 days of remaining 1 1/2 years of data done with latest being 12/12/76. Routine processing is planned to be resumed in the near future.

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
ISEE 1	Williams	77-102A-09
ISEE 2	Keppler	77-102B-07

FUGONO

Dr. Nobuyoshi Fugono, Radio Research Laboratories, Ministry of Posts and
Telecommunications, 4-2-1 Nukui-Kitamachi, Koganei-shi, Tokyo, Japan
Telephone: 0423-21-1211 Telex: 2832611 DEMPA J

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISS	Positive Ion Mass Spectrometer (IO; 4/02/76)	76-019A-04

Thermal ions from 1 to 20 amu

Prof. Johannes Geiss, Physikalisches Institut, Universitat Bern,
Sidlerstrasse 5, CH-3012 Bern, Switzerland
Telephone: 654410 Telex: 32320

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ESA-GEOS 1	*Low-Energy Ion Composition (OO; 6/23/78)	77-029A-03
ESA-GEOS 2	*Low-Energy Ion Composition	78-071A-03

Ion spectra and composition from
0.001 to 17.2 keV in 32 channels
with $\Delta E/E = 0.03$ and from 1 to
140 amu in 64 channels

*Also under Rosenbauer.

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
ISEE 1	Sharp	77-102A-12

GENDRIN

Dr. Roger E. Gendrin, Centre National d'Etudes des Telecommunications/
CRPE, 38-40 Rue du General Leclerc, 92131 Issy-les-Moulineaux, France
Telephone: (1) 645.44.15 Telex: 200570 CNETION

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ESA-GEOS 1	Magnetic Wave Fields (Part of S-300) (OO; 6/23/78)	77-029A-06
ESA-GEOS 2	Magnetic Wave Fields (Part of S-300)	78-071A-06

Vector magnetic fields from 0.1
to 450 Hz and from 0.3 kHz

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
ISEE 1	Harvey	77-102A-08
ISEE 2	Harvey	77-102B-06

GLOECKLER

Dr. George Gloeckler, Department of Physics and Astronomy, University
of Maryland, College Park, MD 20740 U.S.A.

Telephone: (301) 454-3135

Telex: None

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
IMP-H	Ions and Electrons in the Energy Range 0.1 to 2 MeV (P; 11/25/72)	72-073A-03
IMP-J	Solid-State Detectors (OO; 10/31/78) (P; 12/15/78)	73-078A-03

Protons from 0.12 to 2.4 MeV

Alphas from 90 to 500 keV/nucleon

Z = 1 to 8 with charge resolution
from 0.05 to 1.0 MeV/Nucleon

Z = 9 to 28 with charge group
resolution from 0.05 to 1.0 MeV/
nucleon

Electrons from 0.12 to 4.2 MeV

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
ISEE 1	Hovestadt	77-102A-05

GRIGORYEVA

Miss V. P. Grigoryeva, Shternberg Astronomical Institute, Universitetsky
Prospect 13, Moscow, 117234, U.S.S.R.

Telephone:

Telex: 7523 SOLTER SU

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Prognoz 4	Kilometric/Hectometric Receiver (IO; 3/00/76)	75-122A-05
Prognoz 5	Kilometric/Hectometric Receiver (IO; 7/20/77)	76-112A-05

Electric and magnetic field
from 50 kHz to 1 MHz in 10
channels.

Prof. K.I. Gringauz, Space Research Institute, U.S.S.R. Academy of Sciences, Profsoyuznaya Ulitsa 88, Moscow V-485, 117810, U.S.S.R.
 Telephone: 333-31-22 Telex: 7523 SOLTER SU

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Intercosmos 14	*Perpendicular and Parallel Electron Temperature (IO; 6/28/76)	75-115A-02
	Dynamic temperature range is 400° to 10,000°K	
Prognoz 4	Plasma Detector (IO; 3/00/76)	75-122A-02
Prognoz 5	Plasma Detector (IO; 7/20/77)	76-112A-02
	Ion spectra from 0.1 to 4.4 keV	
	Electron probe for density and temperature below 300 eV	
Prognoz 6	Plasma Detector (IO; 9/00/78)	77-093A-02
	Ions from 0.01 to 5.4 keV in 16 channels, density from 0.1 to 50 cm ⁻³ , temperature 20-20,000°K, velocity from 240 to 870 km/s	
	Electrons from 10 to 300 eV in 16 channels, density and temperature	
Prognoz 7	†Electrical Scanning Plasma Detector (IO; 6/00/79)	78-101A-05
	Ions from 0.001 to 20 keV	
Venera 11	Retarding Potential Traps	78-084A-02
Venera 12	Retarding Potential Traps	78-086A-02
	Ions from 0 to 4.5 keV	
	Electrons from 0 to 300 eV	

*Also under Smilauer.

†Also under Gombosi.

Prof. Donald A. Gurnett, Department of Physics and Astronomy, University
of Iowa, Iowa City, IA 52242 U.S.A.
Telephone: (319) 353-3527 TWX: 9105251398 U OF I PHYSICS

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Hawkeye 1	ELV/VLF Receivers (IO; 4/28/78)	74-040A-03
	Electromagnetic waves from 0.01 to 10 kHz and from 10 to 178 Hz in 16 logarithmically spaced channels	
Helios-A	Coarse Frequency, Fine Time Resolution Spectrum Analysis (P; 3/10/75)	74-097A-04
Helios-B	Coarse Frequency, Fine Time Resolution Spectrum Analysis (IO; 5/15/80)	76-003A-04
	Electromagnetic waves from 0.01 to 100 kHz in 16 channels providing 30 percent frequency resolution	
Helios-A	Fine Frequency, Coarse Time Resolution Spectrum Analysis (P; 3/10/75)	74-097A-05
Helios-B	Fine Frequency, Coarse Time Resolution Spectrum Analysis (IO; 5/15/80)	76-003A-05
	Electromagnetic waves from 0.01 to 100 kHz observed with narrow- band sweep frequency analyzer providing 4 percent frequency resolution	
Helios-A	50-kHz to 2-MHz Radio Waves (P; 3/10/75)	74-097A-06
Helios-B	50-kHz to 2-MHz Radio Waves (IO; 5/15/80)	76-003A-06

HALL

Mr. D. F. Hall, Aerospace Corporation, P.O. Box 92957, Los Angeles, CA
90009 U.S.A.

Telephone: (213) 648-6912

Telex:

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
STP P78-2	Quartz Crystal Microbalances in Retarding Potential Analyzers	79-007A-03
STP P78-2	Thermal Control Sample Monitor	79-007A-04

HANSON

Dr. William B. Hanson, Center for Space Science, University of Texas
at Dallas, Founders Bldg. 2.304B, P. O. Box 688, Richardson, TX 75080
U.S.A.

Telephone: (214) 690-2852

TWX: 9108674701 UT DAL

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
AE-C	Retarding Potential Analyzer, Drift Meter (IO; 12/12/78)	73-101A-04
AE-D	Retarding Potential Analyzer, Drift Meter (IO; 1/29/76)	75-096A-04
AE-E	Retarding Potential Analyzer, Drift Meter	75-107A-04

Total ion concentration from 100 to
 $5 \times 10^6 \text{ cm}^{-3}$

Ion temperature to ± 2 percent

Ion drift velocity (3 components) to
 $\pm 100 \text{ ms}^{-1}$ accuracy and precision of
 $\pm 3 \text{ ms}^{-1}$

Spacecraft potential

Ionospheric irregularity index

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
AE-D	Hoffman, J.	75-096A-10

HARDY

Capt. David A. Hardy, Code PHG, USAF Geophysics Laboratory, Hanscom
AFB, Bedford, MA 01731 U.S.A.
Telephone: (617) 861-2431 Telex: None

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
STP P78-2	Rapid Scan Particle Detector	79-007A-12
	Electrons from 50 ev to 1.1 MEV in 16 Ion channels in 18 channels with time resolution of 240 ms per channel.	

HARTZ

Dr. Theodore R. Hartz, Communications Research Centre, Department of
Communications, P.O. Box 11490, Station 'H', Ottawa, Ontario K2H 8S2,
Canada

Telephone:

Telex:

Spacecraft

Experiment

NSSDC ID

ISIS 1

Cosmic Radio Noise

69-009A-10

ISIS 2

Cosmic Radio Noise

71-024A-10

Electromagnetic waves from
0.1 to 20 MHz

HAYS

Dr. Paul B. Hays, Department of Aerospace Engineering, University of Michigan, North Campus, 2508 Patterson, Ann Arbor, MI 48104 U.S.A.
Telephone: (313) 764-7220 TWX: 8102236056 U OF M AA

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
AE-C	Airglow Photometer (IO; 12/12/78) Emissions at 3371, 4278, 5200, 5577, 6300, and from 7319 to 7330 Å	73-101A-14
AE-D	Airglow Photometer (IO; 1/29/76)	75-096A-13
AE-E	Airglow Photometer Emissions from 3000 to 7500 Å	75-107A-11

HEATH

Dr. Donald F. Heath, Code 963, NASA/Goddard Space Flight Center,
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-6421

Telex: 89675 NASCOM GBLT

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
AE-C	Solar EUV Filter Photometer (IO; 5/28/75)	73-101A-05
AE-E	Solar EUV Filter Photometer (IO; 5/20/77)	75-107A-05
	Solar EUV from 40 to 1100 Å in 6 channels	
AE-E	Backscatter UV Spectrometer (IO; 4/28/77)	75-107A-16
	Spatial distribution of atmo- spheric ozone by backscatter of 2500 to 3400 Å using a grating spectrometer	

HECKMAN

Dr. Harry H. Heckman, Bldg. 50-245, Lawrence Berkeley Laboratory,
Berkeley, CA 94720 U.S.A.

Telephone: (415) 486-4000

Telex:

Ext: 6973

Spacecraft

Experiment

NSSDC ID

ISEE 3

High-Energy Cosmic Rays

78-079A-05

Isotopes from $Z = 1$ to 28 with
resolution less than 0.15 amu.

Energy ranges run from 20 to 110 MeV for Z
 $= 1$ and from 125 to 445 MeV/nucleon for
 $Z = 26$.

HEDIN

Dr. Alan E. Hedin, Code 961, NASA/Goddard Space Flight Center,
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-8393

Telex: 89675 NASCOM GBLT

Spacecraft

Experiment

NSSDC ID

AE-E

Closed Source Neutral Mass
Spectrometer

75-107A-08

Neutrals from 1 to 46 amu

HEIKKILA

Prof. Walter J. Heikkila, Center for Space Science, University of
Texas at Dallas, P.O. Box 688, Richardson, TX 75080 U.S.A.
Telephone: (214) 690-2835 TWS: 9108674701 UT DAL

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISIS 2	Soft-Particle Spectrometer (IO; 1/00/76)	71-024A-05

Electrons from 10 eV to 10 keV

HELLIWELL

Prof. Robert A. Helliwell, Radio Science Laboratory, Stanford
University, Stanford, CA 94305 U.S.A.

Telephone: (415) 497-3582

TWX: 9103731153 STANUNVVLF PLA

Spacecraft

Experiment

NSSDC ID

ISEE 1

VLF Wave Injection

77-102A-13

Intensity of 1- to 32-kHz VLF
emissions (emissions are
those generated by ground-based
transmitters, and those stimu-
lated by the ground-based trans-
mitters)

HEPPNER

Dr. James P. Heppner, Code 696, NASA/Goddard Space Flight Center,
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-8797

Telex: 89675 NASCOM GBLT

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISEE 1	DC and AC Electric Fields	77-102A-11
	DC electric fields and AC electric fields from 0.19 to 1900 Hz in 8 channels	

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
IMP-J	Aggson	73-078A-11

HIGBIE

Dr. Paul R. Higbie, P-4 Space Physics Group, Mail Stop 436, Los Alamos
Scientific Laboratory, Los Alamos, NM 87545 U.S.A.
Telephone: (505) 667-4040 TWX: 9101881773 LOS ALA SCI LAB

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Vela 5B	Solar Particle Telescopes (OO; 3/00/80)	69-046E-03
Vela 6A	Solar Particle Telescopes (OO; 3/00/80)	70-027A-03
Vela 6B	Solar Particle Telescopes (OO; 3/00/80)	70-027B-03

Protons from 0.3 to 45 MeV

Alphas from 1.2 to 180 MeV

Vela 5B	Electron Detectors (OO; 3/00/80)	69-046E-04
Vela 6A	Electron Detectors (OO; 3/00/80)	70-027A-04
Vela 6B	Electron Detectors (OO; 3/00/80)	70-027B-04

Electrons from 30 to 150 keV,
but sensitive to protons less
than 300 keV and greater than
50 MeV

76-059A	Charged Particle Analyzer	76-059A-01
77-007A	Charged Particle Analyzer	77-007A-01
79-053A	Charged Particle Analyzer	79-053A-01

Electrons from 30 to 300 keV
in 6 channels and from 0.2 to
2.0 MeV in 6 channels

Protons from about 150 to about
600 keV in 10 channels and from
0.3 to 150 MeV in 16 channels

Alphas (upon command) from 1.2
to 600 MeV in 16 channels

HINTEREGGER

Dr. Hans E. Hinteregger, Code LKO, Stop 30, Aeronomy Laboratory, USAF
Geophysics Laboratory, Hanscom AFB, Bedford, MA 01731 U.S.A.
Telephone: (617) 861-4283 Telex: None

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
AE-C	Solar EUV Spectrometer (P; 3/10/75)	73-101A-06
AE-D	Solar EUV Spectrometer (IO; 12/12/78)	75-096A-06
AE-E	Solar EUV Spectrometer (IO; 1/29/76)	75-107A-06

EUV from 140 to 1850 Å in 12 fixed
channels and 12 channels each with
scan capability at 128 wavelength
positions

HIRAO

Prof. Kunio Hirao, Institute of Space and Aeronautical Science, University of Tokyo, 4-6-1 Komaba, Meguro-Ku, Tokyo 153, Japan
Telephone: 03-467-1111 Ext. 249 Telex: J24550 SPACE TKY

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
SRATS	Electron Temperature (IO; 11/03/76) Ionospheric Temperature	75-014A-05

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
Kyokko	Oyama	78-014A-01

HOFFMAN, J.

Dr. John H. Hoffman, Center for Space Science, University of Texas at
Dallas, Mail Stop: FO 2.2, P.O. Box 688, Richardson, TX 75080 U.S.A.
Telephone: (214) 690-2840 TWX: 9108674701 UT DAL

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
AE-C	Magnetic Ion Mass Spectrometer (P; 2/28/76) (IO; 12/12/78)	73-101A-10
AE-D	Magnetic Ion Mass Spectrometer (IO; 1/29/76)	75-096A-10
	Thermal positive ions from 1 to 90 amu	
ISIS 2	Ion Mass Spectrometer (IO; 7/00/79)	71-024A-06
	Thermal positive ions from 1 to 64 amu	

HOFFMAN, R.

Dr. Robert A. Hoffman, Code 696, NASA/Goddard Space Flight Center,
Greenbelt, MD 20771 U.S.A.
Telephone: (301) 344-7386 Telex: 89675 NASCOM GBLT

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
AE-C	Low-Energy Electrons (IO; 12/12/78)	73-101A-12
AE-D	Low-Energy Electrons (IO; 1/29/76)	75-096A-12

Electrons and protons from
0.2 to 25 keV in 16 channels

Dr. Dieter K. Hovestadt, Max-Planck-Institut für Physik und Astrophysik, 8046 Garching bei München, Fed. Rep. of Germany
 Telephone: (089) 3299 817 Telex: 5215845 XTER-D

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISEE 1	Low-Energy Cosmic Ray Composition (P; 8/07/78)	77-102A-05
ISEE 3	Low-Energy Cosmic Ray Composition	78-079A-03

Electrons from 75 to 1300 keV
in 4 channels

Protons from 0.17 to 20 MeV
in 6 channels

Alphas from 0.17 to 20 MeV/
nucleon in 8 channels

<u>Q or Z State</u>	<u>No. of Channels</u>	<u>Energy Range</u>
1; 2	4 each	27.4-560 keV/Q
>1	2	8.14-30.5 keV/Q
1 & 2	1	105-560 keV/Q
>2	3	27.4-140 keV/Q
>3	3	2.88-560 keV/Q
>1	3	>0.1, 0.1-.17, 0.45 MeV/nucleon
>2	5	>0.2, 0.025-80 (Fe) MeV/nucleon (Depends on Nuclei)
Li, Be, B	1	0.75-2.0 (Be) MeV/nucleon (Depends on Nuclei)
C, O	1	0.3-0.7 (O) MeV/nucleon (Depends on Nuclei)
C	3	0.46-2.5 MeV/nucleon
O	3	0.7-2.5 MeV/nucleon
Ne-S	3	0.3-2.5 (S) MeV/nucleon (Depends on Nuclei)
Fe group	4	0.64-2.56 (Fe) MeV/nucleon (Depends on Nuclei)

HOVESTADT (continued)

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
IMP-H	Gloeckler	72-073A-03
IMP-J	Gloeckler	73-078A-03

HULTQVIST

Dr. Bengt K.G. Hultqvist, Kiruna Geophysical Institute, S-98101 Kiruna
1, Sweden

Telephone: 0980-12241

Telex: 8754 GEOFYS

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ESA-GEOS 1	Low-Energy Electron and Proton Pitch Angle Distribution (OO; 6/23/78)	77-029A-04
ESA-GEOS 2	Low-Energy Electron and Proton Pitch Angle Distribution	78-071A-04
	Electrons from 0.2 to 20 keV in 32 channels	
	Protons from 0.2 to 20 keV in 32 channels	
Prognoz 7	Magnetospheric Ion Composition Spectrometer (IO; 6/00/79)	78-101A-02
	Electrons from 0.05 to 40 keV	
	Ions from 0.05 to 40 keV/Q	
	Masses from 1 to 20 amu with energies from 0.2 to 16 KeV	

HYNDS

Dr. R.J. Hynds, Physics Department, Imperial College of Science and
Technology, Prince Consort Road, London SW7 2BZ, England, United Kingdom
Telephone: Telex:

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISEE 3	Energetic Protons	78-079A-08

Protons from 0.035 to 1.6 MeV
in 8 channels

IMHOF

Dr. William L. Imhof, Department 52-12, Building 205, Lockheed Palo Alto
Research Laboratory, 3251 Hanover Street, Palo Alto, CA 94304 U.S.A.
Telephone: (415) 493-4411 Telex: None
 Ext. 45595

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
STP P78-1	Gamma-Ray Spectrometer	79-017A-01

Electrons by bremsstrahlung from
40 keV to 2.5 MeV in 4096 channels
or by a ≈ 3 gain change from
0.12 to 7.5 MeV. Also from
20-200 keV in 6 channels.

IWAMOTO

Mr. I Iwamoto, Radio Research Laboratories, 4-2-1 Nukui-Kitamachi,
Koganei-Shi, Tokyo 184, Japan
Telephone: 0423-21-1211

Telex: 2832611 DEMPA J

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Kyokko	*Ion Mass Spectrometer (IO; 11/09/79) Positive ions 1 to 4 amu and 14 to 17 amu	78-014A-06
ISS b	Bennett Ion Mass Spectrometers Positive ions from 1 to 20 amu and densities from 1 to 10^4 cm ⁻³	78-018A-04

*Turned on 2/26/78.

JOHNSON

Dr. Richard G. Johnson, Department 52-01, Building 201, Lockheed Palo
Alto Research Laboratory, 3251 Hanover Street, Palo Alto, CA 94304
U.S.A.

Telephone: (415) 493-4411
Ext. 45479

Telex: None

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
STP P78-2	Energetic Ion Spectrometer	79-007A-13

Ion spectra and composition from
0.1 to 20 keV and from 1 to 150 amu.

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
ISEE 1	Sharp	77-102A-12

JOSELYN

Ms. Joanne Joselyn, Code R43, Space Environment Laboratory, NOAA
Environmental Research Laboratories, Boulder, CO 80303 U.S.A.
Telephone: (303) 497-4147 or 3204 Telex: 45897 SOLTERWARN BDR

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
GOES 1	*Magnetic Field Monitor (OO; 8/11/77)	75-100A-04
GOES 2	**Magnetic Field Monitor	77-048A-04
GOES 3	Magnetic Field Monitor	78-062A-04
SMS 1	†Magnetic Field Monitor (OO; 7/19/77)	74-033A-04
SMS 2	††Magnetic Field Monitor (OO; 7/16/78)	75-011A-03

Parallel and perpendicular magnetic fields with 50-, 100-, 200-, and 400-gamma scales with \pm 1200-gamma offset capability in 40-gamma steps

*Operated 1/16/76 to 8/10/77.
**Operated from 8/17/77.
†Operated 7/01/74 to 1/08/76; 5/18/76 to 8/16/76; 5/09/77 to 7/19/77.
††Operated 2/10/75 to 5/18/76; 8/17/76 to 5/08/77; 8/11/77 to 3/10/78;
6/01/78 to 7/03/78.

KACHAROV

Dr. G. Ye. Kacharov, A.F. Ioffe Leningrad Institute for Physics and
Technology, U.S.S.R. Academy of Sciences, Polytekhnicheskaya Ulitsa 26,
Leningrad K 21, 194021, U.S.S.R.

Telephone:

Telex:

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Prognoz 4	Solar X Rays (IO; 3/00/76)	75-122A-03
Prognoz 5	Solar X Rays (IO; 7/20/77)	76-112A-03
Prognoz 6	Solar X Rays (IO; 9/00/78)	77-093A-03
	X Rays from 2 to 511 keV	
Prognoz 7	X-Ray Spectrometer (IO; 6/00/79)	78-101A-06
	X Rays from 2 to 200 keV	

KANEDA

Dr. Eisuke Kaneda, Geophysics Research Laboratory, University of Tokyo,
2-11-16 Yoyoi-Cho, Bunkyo-Ku, Tokyo 113, Japan
Telephone: 03-812-2111 Telex:
 Ext. 6476

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Kyokko	*UV Auroral TV Imager (IO; 11/09/79)	78-014A-03

Auroral photos around 1300 Å
every 128 sec. Field of view
was 60° and image frame was
178 x 198 pixels

*Turned on 2/24/78.

KAWASHIMA

Prof. N. Nawashima, Institute of Space and Aeronautical Science,
University of Tokyo, 4-6-1 Komaba, Meguro-Ku, Tokyo 153, Japan
Telephone: 03-467-1111 Ext. Telex: J24550 SPACE TKY

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Jikiken	Controlled Electron Beam Emissions Energy 100, 125, 150, 200 eV Current 1/4, 1/2, 3/4, 1 mA	78-087A-07

KEPPLER

Dr. Erhard Keppler, Max-Planck-Institut für Aeronomie, Postfach 20,
D-4311, Katlenburg-Lindau 3, Fed. Rep. of Germany
Telephone: 05556-41296 Telex: 965527 AERLI D

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Helios-A	Energetic Electron Detector	74-097A-10
Helios-B	Energetic Electron Detector (IO; 5/15/80)	76-003A-10
	Electrons from 20 keV to 2 MeV in 16 directional and 16 energy channels	
	Protons from 80 keV to 6.2 MeV in 16 directional and 16 energy channels.	
ISEE 2	Energetic Electrons and Protons	77-102B-07
	Electrons from 20 keV to 1 MeV in 5 directions, 12 energy channels each	
	Protons from 25 keV to 2 MeV in 5 directions, 12 energy channels each	

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
ESA-GEOS 1	Wilken	77-029A-01
ESA-GEOS 2	Wilken	78-071A-01
ISEE 1	Williams	77-102A-09

KIMURA

Dr. I. Kimura, Department of Electrical Engineering II, Kyoto
University, Kyoto 606, Japan

Telephone:

Telex:

Spacecraft

Experiment

NSSDC ID

Jikiken

VLF Doppler Propagation
22.3 kHz NWC signal

78-087A-03

KOONS

Dr. Harry C. Koons, Space Sciences Laboratory, Bldg. A6, Mail Station
2447B, Aerospace Corporation, P.O. Box 92957, Los Angeles, CA 90009
U.S.A.

Telephone: (213) 648-6519

TWX: 9103486640 AERO-CORP ELS

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
S3-3	*ELF/VLF Receiver (OO; 5/15/79) Magnetic field component of E-M waves from 0.1 to 20 kHz	76-065B-06
STP P78-2	Charging Electrical Effects Analyzer Electromagnetic interference from 0.1 to 50 kHz in 10 channels, from 0.1 to 5 kHz in broad band, and from 2 to 30 MHz by swept frequency.	79-007A-02

*Damaged at launch; only observing spacecraft noise. No useful data
obtained.

KORTH

Dr. Axel Korth, Max-Planck-Institut fur Aeronomie, Postfach 20, D-3411
Katlenburg-Lindau 3, Federal Republic of Germany
Telephone: 05556-411 Telex: 965527 AERLI D

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ESA-GEOS 2	Electron and Proton Pitch Angle Dis- tribution Protons from 40 KeV to 1.4 MeV Electrons from 30 KeV to 200 KeV	78-071A-01

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
ESA-GEOS 1	WILKEN	77-029A-01

KOTAKI

Mr. M. Kotaki, Radio Research Laboratories, 4-2-1, Nukui-Kitamachi,
Koganei-Shi, Tokyo 184, Japan
Telephone: 0423-21-1211 Telex: 2832611 DEMPA J

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISS b	Radio Noise Receiver	78-018A-02
	Observations at 2.497, 4.997, 9.997, 10.003, 24.996 and 25.004 MHz	

KOVALEV

Dr. E.E. Kovalev, Institute for Medical and Biological Problems, Moscow,
U.S.S.R.

Telephone:

Telex: 7523 SOLTER SU

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Prognoz 7	Proton Spectrometer (IO; 6/00/79)	78-101A-14
	Protons from 0.5 to 1000 MeV	
Prognoz 7	Standard Dosimeter (IO; 6/00/79)	78-101A-15
	Doses for particles above 30 MeV	

KREPLIN

Mr. Robert W. Kreplin, Code 7175, Space Science Division, U.S. Naval
Research Laboratory, 4555 Overlook Avenue, SW, Washington, DC 20375
U.S.A.

Telephone: (202) 767-2603

Telex: 892632 TCC NRL WSH

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Solrad 10	*Solar Radiation Detectors (IO; 7/00/78)	71-058A-01
	Solar X rays from 0.08 to 60 Å in 8 channels and from 170 to 1600 Å in 5 channels	
Solrad 11A	1- to 8-Å Solar X-Ray Monitor (IO; 6/12/77)	76-023C-04
Solrad 11B	1- to 8-Å Solar X-Ray Monitor (IO; 10/31/79)	76-023D-04
	Solar X rays from 1 to 8 Å	
Solrad 11A	8- to 16-Å Solar X-Ray Monitor (IO; 6/12/77)	76-023C-05
Solrad 11B	8- to 16-Å Solar X-Ray Monitor (IO; 10/31/79)	76-023D-05
	Solar X rays from 8 to 16 Å	
Solrad 11A	44- to 60-Å Solar X-Ray Monitor (IO; 6/12/77)	76-023C-06
Solrad 11B	44- to 60-Å Solar X-Ray Monitor (IO; 10/31/79)	76-023D-06
	Solar X rays from 44 to 60 Å	
Solrad 11A	170- to 1050-Å Solar EUV Monitor (IO; 6/12/77)	76-023C-07
Solrad 11B	170- to 1050-Å Solar EUV Monitor (IO; 10/31/79)	76-023D-07

UV from 170 to 1050 Å in 3 channels.

*Partial failure by 7/73.

KREPLIN (continued)

Solrad 11A	*1080- to 1350-Å Solar UV Monitor (IO; 6/12/77)	76-023C-08
Solrad 11B	**1080- to 1350-Å Solar UV Monitor (IO; 1/00/77)	76-023D-08
Solar UV flux from 1080 to 1350 Å		
Solrad 11A	0.5- to 3-Å Solar X-Ray Monitor (IO; 6/12/77)	76-023C-12
Solrad 11B	0.5- to 3-Å Solar X-Ray Monitor (IO; 10/31/79)	76-023D-12
Solar X Rays from 0.5 to 3 Å		
Solrad 11A	2- to 10-Å Solar X-Ray Monitor (IO; 6/12/77)	76-023C-13
Solrad 11B	2- to 10-Å Solar X-Ray Monitor (IO; 10/31/79)	76-023D-13
Solar X Rays from 1 to 20 Å		
STP P78-1	Solar X-Ray Spectrometer	79-017A-03
Solar X Rays from 0.3 to 25 Å		

*Partial failure by 8/76.

**Inoperative by 1/77.

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
Solrad 11A	Blake	76-023C-14
	Blake	76-023C-17
	Blake	76-023C-23
	Byram	76-023C-16
	Feldman	76-023C-09
	Vampola	76-023C-22
	Yates	76-023C-20
	Yates	76-023C-21

KREPLIN (continued)

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
Solrad 11B	Blake	76-023D-14
	Blake	76-023D-17
	Blake	76-023D-23
	Byram	76-023D-16
	Feldman	76-023D-09
	Vampola	76-023D-22
	Yates	76-023D-20
	Yates	76-023D-21

KRIMIGIS

Dr. Stamatios M. Krimigis, Space Physics and Instrumentation Group,
Applied Physics Laboratory, Johns Hopkins University, Johns Hopkins
Road, Laurel, MD 20810 U.S.A.

Telephone: (301) 953-7100
Ext. 3252

Telex: 89548 APL JHU LAUR

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
IMP-H	Charged Particle Measurements (P; 12/11/73) (OO; 10/31/78)	72-073A-08
IMP-J	Charged Particle Measurements	73-078A-08
	Electrons from 0.2 to 2.5 MeV	
	Protons from 0.3 to 500 MeV	
	Alphas from 2.0 to 200 MeV	
	Z > 2 above 8 MeV	
	Z > 6 above 32 MeV	
	Z > 20 above 180 MeV	
	Protons plus alphas above 50 MeV	
	Electrons above 15 keV plus protons above 250 keV plus X rays from 2 to 10 Å	

KROEHL

Mr. Herbert W. Kroehl, DF 63, National Geophysics and Solar-Terrestrial Data Center, NOAA Environmental Data and Information Service, Boulder, CO 80302 U.S.A.

Telephone: (303) 497-6501

Telex: 45897 SOLTERWARN BDR

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
DMSP 5D-1/F1	Operational Linescan System (IO; 9/16/79)	76-091A-01
DMSP 5D-1/F2	Operational Linescan System (IO; 2/17/80)	77-044A-01
DMSP 5D-1/F3	Operational Linescan System (P; 5/01/78)	78-042A-01
DMSP 5D-1/F4	Operational Linescan System (P; 12/31/79)	79-050A-01

Emissions from 0.4 to 1.1
micrometers and 8 to 13
micrometers with spatial
resolution of 0.56 and 2.8 km

KUBO

Dr. H. Kubo, Institute of Space and Aeronautical Science, University of
Tokyo, 4-6-1 Komaba, Meguro-Ku, Tokyo 153, Japan
Telephone 03-467-1111 Telex: J24550 SPACE TKY

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Jikiken	Energy Spectrum of Particles Electrons from 5 eV to 11 keV with $\Delta E/E = 0.6$ Ions from 0.02 to 30 keV/Q with $\Delta E/E = 0.6$	78-087A-06

LANGEL

Dr. Robert A. Langel, Code 922, NASA/Goddard Space Flight Center,
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-6565

Telex: 89675 NASCOM GBLT

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Magsat	Cesium Vapor Scalar Magnetometer (IO; 6/11/80) Total magnetic field from 1 to 64,000 gammas with a 1.0-gamma resolution	79-094A-01
Magsat	Vector Fluxgate Magnetometers (IO; 6/11/80) Vector magnetic field from 0.5 to 64,000 gammas for each component with a 0.5-gamma resolution	79-094A-02

LAZARUS

Dr. Alan J. Lazarus, Room 37-687, Center for Space Research,
Massachusetts Institute of Technology, Cambridge, MA 02139 U.S.A.
Telephone: (617) 253-4284 Telex: 921473 MIT CAM

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Solrad 11A	Solar Wind Spectrometer (IO; 1/18/77)	76-023C-15
Solrad 11B	Solar Wind Spectrometer (IO; 2/00/78)	76-023D-15
	Ions from 200 to 5000 eV/Q in 24 channels	
	Electrons from 15 to 115 eV in 4 channels	

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
IMP-H	Bridge	72-073A-02
IMP-J	Bridge	73-078A-02
Pioneer 6	Bridge	65-105A-02

LEDLEY

Dr. Brian G. Ledley, Code 694, NASA/Goddard Space Flight Center,
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-6259

Telex: 89675 NASCOM GBLT

Spacecraft

Experiment

NSSDC ID

STP P78-2

Vector Fluxgate Magnetic Field Monitor

79-007A-08

Components from 0.3 to 450 gammas
with 0.3-gamma resolution and DC
to 70 Hz

LICKIN

Mr. O. B. Lickin, Space Research Institute, U.S.S.R. Academy of
Sciences, Profsoyuznaya Ulitsa 88, Moscow, V-485, 117810, U.S.S.R.
Telephone: 333-31-22 Telex: 7523 SOLTER SU

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Prognoz 5	*Solar X-Ray Spectrometer (IO; 7/20/77)	76-112A-07
Prognoz 6	*Solar X-Ray Spectrometer (IO; 9/00/78)	77-093A-07
	Energy range 2 to 100 keV in 5 bands	
Prognoz 7	*Solar X-Ray Spectrometer (IO; 6/00/79)	78-101A-07
	Energy range from 1 to 100 keV in 5 channels	

*Also under Valnicek.

LIKHTER

Dr. J. I. Likhter, IZMIRAN, P/O Academgorodok, Moscow Region, U.S.S.R.
Telephone: 232-19-21 Telex: 7523 SOLTER SU

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Intercosmos 14	*ELF/VLF Receiver (IO; 6/28/76) Electric and magnetic fields from 0.05 to 20 kHz in 10 channels and 2 narrow-band filters at 0.72 and 4.0 kHz	75-115A-03

*Also under Triska.

Dr. Yu. I. Logachev, Institute of Nuclear Physics, Moscow State
University, Moscow 117234, U.S.S.R.

Telephone:

Telex:

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Prognoz 4	Energetic Particles and Charge Composition (IO; 3/00/76)	75-122A-04
Prognoz 5	Energetic Particles and Charge Composition (IO; 7/20/77)	76-112A-04
	Spectra, anisotropy, and charge composition above 500 MeV/nucleon for Z from 2 to 6, 6 to 15, 15 to 35, and 35 to 50	
Prognoz 6	Electron and Proton Spectrometer (IO; 9/00/78)	77-093A-04
	Electrons from 0.03 to 10 MeV	
	Protons from 0.03 to 10 MeV	
Prognoz 7	Electron and Proton Spectrometer (IO; 6/00/79)	78-101A-11
	Electrons from 0.03 to 100 MeV	
	Protons from 0.03 to 100 MeV	
Prognoz 7	Energetic Particle Charge and Mass Composition (IO; 6/00/79)	78-101A-12
	Nuclei from 100 to 500 MeV/nucleon	
Prognoz 7	Gas Discharge Counter (IO; 6/00/79)	78-101A-13
	Protons from 15 to 500 MeV	

LOGACHEV (continued)

Venera 11	Electron and Proton Spectrometer	78-084A-04
Venera 12	Electron and Proton Spectrometer	78-086A-04

Electrons from 5 to 500 keV

Protons from 0.05 to 1 MeV and
from 30 to 200 MeV

LUTSENKO

Dr. V. N. Lutsenko, Space Research Institute, U.S.S.R. Academy of
Sciences, Profsoyuznaya Ulitsa 88, Moscow, V-485, 117810, U.S.S.R.
Telephone: 333-31-22 Telex: 7523 SOLTER SU

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Prognoz 5	Energetic Particles Charge and Mass Composition (IO; 7/20/77) Energy range 7 to 30 MeV/nucleon	76-112A-06
Prognoz 6	*Energetic Particles Charge and Mass Composition (IO; 9/00/78) Protons from 1.4 to 18 MeV in 3 channels Alphas from 1.4 to 18 MeV/nucleon in 3 channels Charge composition from Z = 1 to 18	77-093A-11

*Also under Fischer.

MAIER

Dr. Eugene J. R. Maier, Code 963, NASA/Goddard Space Flight Center,
Greenbelt, MD 20771 U.S.A.
Telephone (301) 344-8912

Telex: 89675 NASCOM GBLT

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISIS 2	Retarding Potential Analyzer	71-024A-08
	Ion density and temperature	
	Electron density and temperature	

MARCOS

Mr. Frank A. Marcos, Code LKB, USAF Geophysics Laboratory, Hanscom AFB,
Bedford, MA 01731 U.S.A.

Telephone: (617) 861-3037

Telex: None

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
S3-2	Triaxial Piezoelectric Accelerometer (IO; 5/01/78)	75-114B-10
	Atmospheric drag from 10^{-8} to 10^{-5} g	

MARIANI

Prof. Franco Mariani, Laboratorio Plasma Spazio, CP27, 00044, Frascati,
Rome, Italy

Telephone: 06 942 3801,2,3,4,5

Telex: 68489 SPAZIO

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ESA-GEOS 1	*Triaxial Fluxgate Magnetometer (OO; 6/23/78)	77-029A-09
ESA-GEOS 2	Triaxial Fluxgate Magnetometer	78-071A-09

DC to 5-Hz magnetic fields; X and
Y axis ± 60 and ± 180 gammas; Z axis
-480 to +540 gammas

*Large offset 12/77 due to radiation damage.

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
Helios-A	Ness	74-097A-02
Helios-B	Ness	76-003A-02
Pioneer 8	Ness	67-123A-02

MASLEY

Dr. Andrew J. Masley, Bldg. R1, Rm. 1096, TRW Systems Group, One Space Park, Redondo Beach, CA 90278 U.S.A.

Telephone: (213) 536-2266

Telex: 674476 TRWSYSTMS RNDO

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ATS 6	Solar Cosmic Rays and Geomagnetically Trapped Radiation (OO; 3/31/78)	74-039A-06
	Protons from 0.3 to 250 MeV in 12 channels	
	Alphas from 2.0 to 200 MeV in 10 channels	
	Electrons from 50 to 1000 keV in 4 channels	

Status of Data Analysis (as of 4/77): There are no plans to process all the data. A total of 175 days have been processed based on the following selection criteria in order of priority:

1. Solar Cosmic Ray Events: 11/04-10/74, 7/03-08/74, 9/11-16/74, 9/20-22/74, 9/23-26/74, and 8/20-27/75 are processed; 3/25-28/76 and 4/30/76 awaiting processing.
2. Periods when ATS 6 crosses geomagnetic equator: (a) move from 94°W to 35°E in summer 75 is processed; (b) 35°E to 140°W in fall 76 awaiting processing.
3. IMS/SSC Special Periods.
4. Interplanetary magnetic field sector boundary crossings.
5. Active periods.
6. Quiet periods.

MATSUOKA

Prof. Masaru Matsuoka, Institute of Space and Aeronautical Science,
University of Tokyo, 4-6-1 Komaba, Meguro-Ku, Tokyo 153, Japan
Telephone: 03-467-1111 Telex: J24550 SPACE TKY

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
SRATS	*Solar X-Ray Proportional Counter (IO; 3/14/77)	75-014A-01
	Solar X rays from 5.9 to 9.5 keV and from 9.5 to 11.5 keV in 2 channels	

*Data acquisition during 1976 was about 4 months, but counter only operated efficiently for 240 hours. Most data are at background levels.

MATUURA

Dr. Nobuo Matuura, Radio Research Laboratories, 4-2-1 Nukui-Kitamachi,
Koganei-Shi, Tokyo 184, Japan

Telephone: 0423-21-1211

Telex: 2832611 DEMPA J

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISS	Swept Frequency Topside Sounder (IO; 4/02/76)	76-019A-01
ISS b	Swept Frequency Topside Sounder	78-018A-01

Frequency from 0.5 to 14.8 MHz

McCRACKEN

Dr. Ken G. McCracken, Mineral Physics Section, Minerals Research
Laboratory, Commonwealth Scientific and Industrial Research
Organization, P.O. Box 136, North Ryde, NSW 2113, Australia
Telephone: 888 1666 Telex: 25817 MINRE AA

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Pioneer 6	Cosmic-Ray Anisotropy (P; 12/03/74) Protons from 7 to 44 MeV and from 44 to 77 MeV Alphas from 31 to 76 MeV/nucleon	65-105A-05
Pioneer 9	Cosmic-Ray Anisotropy Protons from 1 to 63 MeV in several energy channels Alphas from 1 to 2 MeV/nucleon	68-100A-05

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
Helios-A	Trainor	74-097A-08
Helios-B	Trainor	76-003A-08

Dr. Ian B. McDiarmid, Herzberg Institute of Astrophysics, National
 Research Council of Canada, 100 Sussex Drive, Ottawa, Ontario, Canada
 K1A 0R6

Telephone: (613) 992-7884

Telex: 0533715 NRC OTT

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISIS 1	Energetic Particle Detectors Electrons above 8, 20, 25, 40, 60, and 140 keV Electrons from 200 to 770 keV Protons above 50, 200, 300, 400, and 500 keV Protons from 50 to 70 keV and from 0.15 to 30 MeV	69-009A-04
ISIS 2	Energetic Particle Detectors (P; 2/04/73) Electrons above 20, 40, 60, 90, 120, 150, and 200 keV Electrons at 0.15, 1.3, 2.2, 3.0, 4.1, 6.0, 7.8, and 9.6 keV Electrons from 1 to 2 MeV Protons above 150, 200, 240, 600, and 750 keV Protons at 2.2, 5.2, 7.6, 9.4, 12.4, 17.0, 21.6, and 26.2 keV Protons from 0.8 to 4.0, 3.2 to 12.7, and 12.9 to 28.0 MeV	71-024A-04

McDONALD

Dr. Frank B. McDonald Code 660, NASA/Goddard Space Flight Center,
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-8801

Telex: 89675 NASCOM GBLT

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
IMP-H	Solar and Cosmic-Ray Particles (OO; 10/31/78)	72-073A-09
IMP-J	Solar and Cosmic-Ray Particles	73-078A-09
	Electrons above 150, 350, and 700 keV, and from 2 to 12 MeV	
	Protons above 11 thresholds from 0.05 to 25 MeV	
	Z = 1 to 16 (resolved) from 4 to 20 MeV/nucleon	
	Z = 1 to 30 from 20 to 80 MeV/nucleon (unidirectional) and from 80 to 500 MeV/nucleon (bidirectional)	

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
Helios-A	Trainor	74-097A-08
Helios-B	Trainor	76-003A-08

McILWAIN

Prof. Carl E. McIlwain, Physics Department, B-019, University of
California, San Diego, P.O. Box 109, La Jolla, CA 92093 U.S.A.
Telephone: (714) 452-3314 TWX: 9103371777 CUSD CUL LJLA
Ext. 1852

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ATS 5	Omnidirectional High-Energy Particle Detector (OO; 4/01/78)	69-069A-03
	Electrons from 0.5 to 5 MeV in 12 channels	
	Protons above 12, 16, and 24 MeV	
ATS 6	*Auroral Particles (IO; 5/15/77)	74-039A-05
	Electrons and protons from thermal energies to 81 keV in 64 channels	

*By 3/15/76, the fixed analyzer had failed, the rotational capability of one head carrying one electron and one proton electrostatic analyzer had been lost, and one of the two deflection plate high-voltage supplies had failed, reducing the energy range of the analyzers.

Status of Data Analysis for ATS 6 (as of 4/77): Routine production is keeping pace with receipt of data tapes from Goddard; line plots are completed through 10/76 with some days processed into 12/76. These plots are used to select periods for which spectrograms are made.

McISAAC

Mr. Joseph P. McIsaac, Code LKD, USAF Geophysics Laboratory, Hanscom
AFB, Bedford, MA 01731 U.S.A.

Telephone: (617) 861-3083

Telex: None

Spacecraft

Experiment

NSSDC ID

S3-2

Cold and Hot Cathode Magnetron Gages
(IO; 5/01/78)

75-114B-01

Measures densities from
 1.33×10^{-6} to 1.33×10^{-2} N/m³
(10^{-8} to 10^{-4} torr)

MEEKINS

Dr. John F. Meekins, Code 7125, U.S. Naval Research Laboratory, 4555
Overlook Avenue, SW, Washington, DC 20375 U.S.A.

Telephone: (202) 767-2719

Telex: 892632 TCC NRL WSH

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Solrad 11A	Continuum (8.8 Å) and Magnesium (9.17 and 8.42 Å) Monitor (IO; 6/12/77)	76-023C-03
Solrad 11B	Continuum (8.8 Å) and Magnesium (9.17 and 8.42 Å) Monitor (IO; 10/31/79)	76-023D-03
	X rays in the magnesium-11 and -13 lines (9.17 and 8.42 Å) and in the continuum at 8.8 Å	
Solrad 11A	*Bragg X-Ray Polarimeter (IO; 3/04/77)	76-023C-11
Solrad 11B	Bragg X-Ray Polarimeter (IO; 12/00/76)	76-023D-11
	X-ray intensity and polarization at 2.8 Å	

*Only 60 percent sectoring 1/18/77.

MELZNER

Dr. F. Melzner, Max-Planck-Institut für Extraterrestrische Physik, 8046
Garching bei München, Fed. Rep. of Germany
Telephone: 3299517 Telex: 5215845 XTERR-D

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ESA-GEOS 1	*DC Electric Field and Gradient B by Electro Beam Deflection (IO; 5/01/77)	77-029A-08
ESA-GEOS 2	DC Electric Field and Gradient B by Electron Beam Deflection	78-071A-08

Electrons of several keV are
emitted by 4 electron guns, each
constituting about 10^{-8} ampères;
the return beam is measured

*Only 1 gun operated; data obtained for about 5 days only.

MEYER

Prof. Peter Meyer, Enrico Fermi Institute, University of Chicago, 933
East 56th Street, Chicago, IL 60637 U.S.A.
Telephone: (312) 753-8543 or 8611 Telex:

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISEE 3	Cosmic Ray Electrons and Nuclei	78-079A-06
	Electrons from 5 to 400 MeV	
	Protons from 30 to 15,000 MeV	
	Z = 2 through 16 from 60 to 15,000 MeV/nucleon	
	Z = 26 through 28 from 150 to 15,000 MeV/nucleon	

MICHAEL

Dr. Irving Michael, Code PHG, USAF Geophysics Laboratory, Hanscom AFB,
Bedford, MA 01731 U.S.A.

Telephone (617) 861-2431

Telex: None

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
S3-2	Spherical Electron Sensor and Planar Aperture Ion Sensors (IO; 5/01/78)	76-114B-12
S3-3	Spherical Electron Sensor and Planar Aperture Ion Sensors (OO; 5/15/79)	76-065B-05

Electron density and temperature
from 0.1 to 30 eV; T = 500° to
10,000° K; N = 10 to 3×10^5 cm³

Ions from 0.1 to 30 eV with an
array of 4 sensors; density for
altitudes < 5000 km

MICHELS

Dr. Donald J. Michels, Code 7173, U. S. Naval Research Laboratory, 4555
Overlook Avenue, SW, Washington, DC 20375 U.S.A.

Telephone: (202) 767-2737

Telex: 892632 TCC NRL WSH

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
STP P78-1	*Solar Wind Monitor (P; 2/24/79) White Light Coronagraph	79-017A-02

*The extreme ultraviolet heliograph portion did not function.

MIYAZAKI

Dr. Shigeru Miyazaki, Radio Research Laboratories, 4-2-1

Nukui-Kitamachi, Koganei-Shi, Tokyo 184, Japan

Telephone: 0423-21-1211

Telex: 2832611 DEMPA J

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISS	Retarding Potential Probe (IO; 4/02/76)	76-019A-03
SRATS	Plasma Diagnosis (IO; 3/14/77)	75-014A-06

Ion density and temperature

Electron density and temperature

MIZERA

Dr. Paul Mizera, Space Sciences Laboratory, Bldg. A6, Rm. 2447,
Aerospace Corporation, P.O. Box 92957, Los Angeles, CA 90009 U.S.A.
Telephone: (213) 648-6514 TWX: 9103486640 AERO-CORP ELS

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
DMSP 5D-1/F2	Remote X-Ray Sensor (IO; 2/17/80)	77-044A-06
STP P78-2	Spacecraft Surface Potential Monitor	79-007A-01

MORI

Mr. H. Mori, Radio Research Laboratories, 4-2-1 Nakui-Kitamachi,
Koganei-Shi, Tokyo 184, Japan

Telephone: 0423-21-1211

Telex: 2832611 DEMPA J

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISS b	Spherical Retarding Potential Trap Ion densities from 10^3 to 10^6 cm^{-3} and temperatures from 5×10^2 to 5×10^3 °K Electron densities and temperatures over above ranges	78-018A-03

MORSE

Dr. Fred A. Morse, Bldg. A6, Space Sciences Laboratory, Aerospace Corporation, P.O. Box 92957, Los Angeles, CA 90009 U.S.A.
Telephone: (213) 648-7084 TWX: 9103486640 AERO-CORP ELS

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
DMSP 5D-1/F4	Atmospheric Density Sounder (IO; 12/29/79)	79-050A-07
	Spectral limb scans: from 850 to 1200 Å at 4 Å resolution; from 1100 to 1600 Å at 6 Å resolution, and from 2900 to 3950 Å at 12 Å resolution	

Prof. Forrest S. Mozer, Physics Department, University of California,
Berkeley, Berkeley, CA 94720 U.S.A.

Telephone: (415) 642-0549

TWX: 9103667337 UC LIB BERK

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ATS 5	Tridirectional Medium-Energy Particle Detector (IO; 3/76)	69-069A-04
	Electrons at 40, 75, and 120 keV	
	Protons at 60, 120, and 165 keV	
ISEE 1	*Electric Field Probe	77-102A-06
	Electric fields (0.1 to 200 mV/m) from 0 to 12 Hz and from 6 to 1000 Hz in 4 channels plus Fourier analysis on the ground	
S3-3	AC and DC Electric Fields (OO; 5/15/79)	76-065B-01
	Vector electric fields from 6 boom-mounted spheres, DC to 100 kHz in 13 channels and DC to 17 kHz broadband	

*Operated only 1 orbit out of 8 because experiment interferes with plasma and wave experiments. Electron gun only used in rare cases because it increases normal positive potential of spacecraft, affecting all plasma experiments on board.

MUKAI

Mr. T. Mukai, Institute of Space and Aeronautical Science, University of
Tokyo, 4-6-1 Komaba, Meguro-Ku, Tokyo 153, Japan
Telephone: 03-467-1111 Telex: J24550 SPACE TKY

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Kyokko	*Electron Energy Analyzer (00; 11/09/79)	78-014A-02
	Electrons from 4.5 eV to 11.3 keV in 9 channels	

*Turned on 2/23/78.

NAKAMURA

Mr. M. Nakamura, Science Division, Tsukuba University, Sukura-Mura,
Niibari-Gun, Ibaragi-Ken, 300-31, Japan

Telephone: 0298-53-4207

Telex:

Spacecraft

Experiment

NSSDC ID

Kyokko

*UV Glow Spectrophotometer
(OO; 11/09/79)

78-014A-05

UV lines at 304, 584, 833, 1216,
and 1304 Å with 10-Å resolution

*Turned on 2/28/78.

Dr. Norman F. Ness, Code 690, NASA/Goddard Space Flight Center,
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-8112

Telex: 89675 NASCOM GBLT

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Helios-A	Fluxgate Magnetometer for Average Fields	74-097A-02
Helios-B	Fluxgate Magnetometer for Average Fields (IO; 5/15/80)	76-003A-02
	DC and ULF vector magnetic fields with scales of 25, 75, and 225 gammas	
IMP-J	*Magnetic Fields	73-078A-01
	DC and ULF vector magnetic fields with scales of 12, 36, and 108 gammas	
Pioneer 8	Single-Axis Magnetometer (IO; 10/10/77)	67-123A-01
	DC and ULF vector magnetic fields with scales of 32 and 96 gammas	

*Frozen in 36-gamma scale on 7/11/75.

NEUBAUER

Dr. F. M. Neubauer, Institut für Geophysik und Meteorologie, Technische
Universität Braunschweig, 33 Braunschweig, Mendelssonstrasse 1, Fed.
Rep. of Germany
Telephone: 0513 391-2115 Telex: 9 52 501 GEOBS D

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Helios-A	Fluxgate Magnetometer for Field Fluctuations	74-097A-01
Helios-B	Fluxgate Magnetometer for Field Fluctuations (IO; 5/15/80)	76-003A-01
	DC and ULF vector magnetic fields; components up to 409.6 gammas	
Helios-A	Search Coil Magnetometer	74-097A-03
Helios-B	Search Coil Magnetometer (IO; 5/15/80)	76-003A-03
	Triaxial magnetic fields from 5 Hz to 3 kHz	

NIER

Prof. Alfred O. C. Nier, School of Physics and Astronomy, Institute of
Technology, University of Minnesota, Minneapolis, MN 55455 U.S.A.
Telephone: (612) 373-3325 TWX: 9105763491 MNUWL MPS

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
AE-C	Open Source Neutral Mass Spectrometer (IO; 4/04/77)	73-101A-07
AE-D	Open Source Neutral Mass Spectrometer (IO; 1/29/76)	75-096A-07
AE-E	Open Source Neutral Mass Spectrometer	75-107A-07

Neutral particles from 1 to 48
amu

OGILVIE

Dr. Keith W. Ogilvie, Code 692, NASA/Goddard Space Flight Center,
Greenbelt MD 20771 U.S.A.

Telephone: (301) 344-5904

Telex: 89675 NASCOM GBLT

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
IMP-H	Solar Wind Ion Composition (OO; 10/31/78) ${}^4\text{He}^{++}$, ${}^4\text{He}^+$, ${}^3\text{He}^{++}$, and O ions in all ionization states from 200 to 600 km/s in 30 logarithmically spaced channels	72-073A-12
ISEE 1	Three-Dimensional (Six Axes) Electron Spectrometer Electrons from 7 to 500 eV, from 0.01 to 2 keV, and from 0.105 to 7.05 keV in 16 channels for each range with $\Delta E/E = 0.07$	77-102A-02
ISEE 3	Ion Mass Spectrometer Ions from 0.84 to 11.72 keV/Q in 40 channels with $\Delta E/e = 0.02$, from 300 to 600 km/s in 24 channels with $\Delta v/v$ from 0.03 to 0.05, and from 1 to 5.6 amu/Q	78-079A-11

OSHIO

Prof. T. Oshio, Research Institute for Atomic Energy, Osaka City
University, 4-18 Chiyodadai-Cho, Kawachinagano-Shi, Osaka, Japan
Telephone: Telex:

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
SRATS	Hydrogen Lyman-Alpha (IO; 3/14/77) Solar hydrogen Lyman-alpha using LiF-NO counter	75-014A-02

OYAMA

Dr. K. Oyama, Institute of Space and Aeronautical Science, University of
Tokyo, 4-6-1 Komaba, Meguro-Ku, Tokyo 153, Japan
Telephone: 03-467-1111 Telex: J24550 SPACE TKY
 Ext. 348

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Kyokko	*Electron Probes (OO; 11/09/79)	78-014A-01
	Electron temperature and density	

*Turned on 2/25/78.

PASCHMANN

Dr. Gotz Paschmann, Max-Planck-Institut fur Extraterrestrische Physik,
8046 Garching bei Munchen, Fed. Rep. of Germany

Telephone: (089) 3299 868

Telex: 5215845 XTERR-D

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISEE 2	Fast Plasma Probes (IO; 4/08/80) Two- and three-dimensional electron distribution function measured from 50 eV to 40 keV for ions and from 5 eV to 20 keV for electrons in 16 channels (identical to the fast plasma probes of the Bame experiment on ISEE 1)	77-102B-01

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
ISEE 1	Bame	77-102A-01

PAULIKAS

Dr. George A. Paulikas, Bldg. A6, Mail Station 2403, Space Sciences
Laboratory, Aerospace Corporation, P.O. Box 92957, Los Angeles, CA 90009
U.S.A.

Telephone: (213) 648-7076

TWX: 9103486640 AERO-CORP ELS

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ATS 6	Omnidirectional Spectrometer (00; 3/31/78)	74-039A-07

Electrons from 140 to 600 keV and
above 0.7, 1.55, and 3.9 MeV

Protons from 2.3 to 5.3, 3.4 to
5.3, 12 to 26, 20 to 52, and 40 to
90 MeV

Alphas from 9.4 to 21.2, 13.4 to
21.2, and 46 to 100 MeV

Status of Data Analysis: Data have been routinely processed from launch
through 9/07/77.

PEDERSEN

Dr. Arne Pedersen, Ionospheric Physics Division, Space Science
Department, ESA-European Space Technology Centre, Domeinweg 1,
Noordwijk, The Netherlands
Telephone: (0) 1719-82557

Telex: 84431698 ESTEC NL

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ESA-GEOS 1	DC Fields by Double Probe (Part of S-300) (OO; 6/23/78)	77-029A-07
ESA-GEOS 2	DC Fields by Double Probe (Part of S-300)	78-071A-07

Single-axis electric fields from
DC to 77 kHz

PETIT

Dr. Michel Petit, Centre National d'Etudes des Telecommunications/CRPE,
38-40 rue du General Leclerc, 92131 Issy-les-Moulineaux, France
Telephone: 645 5072 Telex: 200570

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ESA-GEOS 1	VLF Plasma Resonances (Part of S-300) (OO; 6/23/78)	77-029A-05
ESA-GEOS 2	VLF Plasma Resonances (Part of S-300)	78-071A-05

Plasma resonances excited by
signals emitted from 0.3 to 77
kHz

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
ISEE 1	Harvey	77-102A-08
ISEE 2	Harvey	77-102B-06

PHILBRICK

Dr. Charles R. Philbrick, Code LKB, USAF Geophysics Laboratory, Hanscom
AFB, Bedford, MA 01731 U.S.A.

Telephone: (617) 861-4944

Telex: None

Spacecraft

Experiment

NSSDC ID

S3-2

RF Quadrupole Mass Spectrometer
(IO; 5/01/78)

75-114B-02

Masses from 1 to 50 amu

PISARENKO

Dr. Novomir F. Pisarenko, Space Research Institute, U.S.S.R. Academy of Sciences, Profsoyuznaya Ulitsa 88, Moscow 117810, U.S.S.R.
Telephone: 333-31-22 Telex: 7523 SOLTER SU

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Prognoz 6	*Energetic Electron and Proton Spectrometer (IO; 9/00/78) Electrons from 0.3 to 15 MeV in 3 channels and above 20 MeV Protons from 2.1 to 500 MeV in 6 channels and above 500 MeV Alphas from 30 to 75 MeV	77-093A-09
Prognoz 7	*Energetic Electron Spectrometer (IO; 6/00/79) Electrons from 3 to 120 MeV	78-101A-09
Venera 11	Proton Spectrometer	78-084A-06
Venera 12	Proton Spectrometer Protons from 0.1 to 100 MeV in 10 channels	78-086A-06

*Also under Treger.

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
Prognoz 7	Hultqvist	78-101A-02

POTEMRA

Dr. Thomas A. Potemra, Space Physics Instrumentation Group, Applied
Physics Laboratory, Johns Hopkins University, Johns Hopkins Road,
Laurel, MD 20810 U.S.A.

Telephone: (301) 953-7100
Ext. 3253

Telex: 89548 APL JHU LAUR

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
TIP 1	Triaxial Fluxgate Magnetometer Vector magnetic fields to 0.5 gauss; useful for fluctuation studies	72-069A-01

KULAGIN

Dr. Yu M. Kulagin, Institute for Applied Geophysics, Moscow, U.S.S.R.
Telephone: Telex: 7523 SOLTER SU

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Prognoz 7	UV Detector (IO; 6/00/79) Photons from 100 to 1300 Å	78-101A-08

KUNOW

Mr. Horst W. Kunow, Institut für Kernphysik, Universität Kiel,
Olshausenstrasse 40-60, 2300 Kiel, Fed. Rep. of Germany
Telephone: (0431) 880 2487

Telex: 292979

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Helios-A	Cosmic-Ray Particles	74-097A-07
Helios-B	Cosmic-Ray Particles (IO; 5/15/80)	76-003A-07

Proton and alpha particle spectra
from 1 to 1000 MeV/nucleon

KURIKI

Mr. Isao Kuriki, Radio Research Laboratories, 4-2-1 Nukui-Kitamachi,
Koganei-Shi, Tokyo 184, Japan

Telephone: 0423-21-1211

Telex: 2832611 DEMPA J

Spacecraft

Experiment

NSSDC ID

ISS

Radio Noise Near 2.5, 5, 10, and
25 MHz (IO; 4/02/76)

76-019A-02

Noise characteristics observed
at each frequency above

KURT

Dr. V. G. Kurt, Space Research Institute, U.S.S.R. Academy of Sciences,
Profsoyuznaya Ulitsa 88, Moscow, V-485, 117810, U.S.S.R.
Telephone: 333-31-22 Telex: 7523 SOLTER SU

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Prognoz 5	*Interplanetary UV Emission Photometer (IO; 7/20/77)	76-112A-08
Prognoz 6	*Interplanetary UV Emission Photometer (IO; 9/00/78)	77-093A-08
	304-Å He+ line with thin film filter	
	584-Å He solar line with thin film filter	
	584-Å He line with thin film filter	
	1216-Å H Lyman α line with absorption cell	
Venera 11	*UV Grating Monochromator	78-084A-03
Venera 12	*UV Grating Monochromator	78-086A-03
	Spectral lines at 304, 584, 736, 869, 1048, 1216, 1300, 1356, and 1500 Å	

*Also under Bertaux.

REAGAN

Dr. Joseph B. Reagan, Department 52-15, Bldg. 205, Lockheed Palo Alto
Research Laboratory, Palo Alto, CA 94304 U.S.A.

Telephone: (415) 493-4411

Telex: None

Ext. 45733

Spacecraft

Experiment

NSSDC ID

STP P78-2

High-Energy Particle Detector

79-007A-15

Electrons from 0.3 to 2.1 MeV

Protons from 1 to 100 MeV

Alpha particles from 6 to 60 MeV

REASONER

Dr. David L. Reasoner, Code ES-53, NASA/Marshall Space Flight Center,
Marshall Space Flight Center, AL 35812 U.S.A.

Telephone: (205) 453-3037

Telex: 594416 NASA MSFC HTB

Spacecraft

Experiment

NSSDC ID

STP P78-2

Light Ion Mass Spectrometer

79-007A-09

Protons from 0 to 600 eV

H⁺, He⁺, O⁺ abundance

RICE

Dr. C. J. Rice, Space Science Laboratory, Bldg. A6, Mail Station 2617D,
Aerospace Corporation, P.O. Box 92957, Los Angeles, CA 90009 U.S.A.
Telephone: (213) 647-1749 TWX: 9103486640 AERO-CORP ELS

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
S3-2	Cold Cathode Magnetron Gage (IO; 5/01/78) Atmospheric neutral densities from 1.33×10^{-5} to 1.33×10^{-2} N/m ³ (10^{-7} to 10^{-4} torr)	75-114B-03
S3-2	Electrostatic Analyzer (2 to 300 eV) (IO; 5/01/78) Electrons and protons from 2 to 300 eV	75-114B-13
S3-2	Retarding Potential Analyzer (IO; 5/01/78) Ambient ionospheric ion composition and temperature, 1-60 amu	75-114B-11

ROSENBAUER

Dr. Helmut R. Rosenbauer, Max-Planck-Institut für Aeronomie, Postfach
60, D-3411, Katlenburg-Lindau 3, Fed. Rep. of Germany
Telephone: 05556-41296 Telex: 965527 AERLI D

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Helios-A	Plasma Detectors	74-097A-09
Helios-B	Plasma Detectors (IO; 5/15/80)	76-003A-09
	Positive ions from 0.231 to 16 keV/Q and electrons from 0.5 eV to 1.6 keV	
ESA-GEOS 1	*Low-Energy Ion Composition (OO; 6/23/78)	77-029A-03
ESA-GEOS 2	*Low-Energy Ion Composition	78-071A-03
	Ion spectra and composition from 1 eV to 17 keV	

*Also under Geiss.

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
ISEE 1	Bame	77-102A-01
ISEE 1	Sharp	77-102A-12
ISEE 2	Paschmann	77-102B-01

ROTHWELL

Dr. Paul L. Rothwell, Code PHG, USAF Geophysics Laboratory, Hanscom AFB,
Bedford, MA 01731 U.S.A.

Telephone: (617) 861-3240

Telex: None

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
D MSP 5D-1/F2	Precipitating Electron Spectrometer (IO; 2/12/80)	77-044A-03
D MSP 5D-1/F3	Precipitating Electron Spectrometer (IO; 1/25/79)	78-042A-03
D MSP 5D-1/F4	Precipitating Electron Spectrometer (P; 1/28/80)	79-050A-03

Electrons from 50 to 1000 eV in
8 channels and from 1 to 20 keV
in 8 channels

RUSSELL

Dr. Christopher T. Russell, Space Science Center, University of California, Los Angeles, Los Angeles, CA 90024 U.S.A.

Telephone: (213) 825-3188

TWX: 9103426981 UCLA SPLAB LSA

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISEE 1	Fluxgate Magnetometers	77-102A-04
ISEE 2	Fluxgate Magnetometer	77-102B-04

DC and ULF vector magnetic fields
8192 gammas for each component
with ranges of ± 256 and 8192
gammas with resolution of 1/128
and 1/4 gamma, respectively.
Bandwidth of 2 or 32 Hz depending
on telemetry rate

SAGALYN

Dr. Rita C. Sagalyn, Code PHG, Stop 30, USAF Geophysics Laboratory,
Hanscom AFB, Bedford, MA 01731 U.S.A.

Telephone: (617) 861-2431

Telex: None

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISIS 1	Spherical Electrostatic Analyser Density of positive thermal ions Kinetic temperature of thermal ions from 700° to 4000°K Energy spectrum of protons from 0 to 2 keV	69-009A-08
DMSP 5D-1/F2	Ionospheric Plasma Monitor (IO; 6/05/77) Electron densities from 10 to 10^6 cm ⁻³ and temperatures from 200° to 15,000°K Ion temperatures from 200° to 15,000°K and average ion mass from 1 to 35 amu	77-044A-05
DMSP 5D-1/F4	Ionospheric Plasma Monitor (P; 1/28/80)	79-050A-05
STP P78-2	Plasma Probe Electron and ion densities from 0.1 to 10^4 /cu cm Ion and electron temperatures in the range of 0 to 100 eV	79-007A-10

Mr. Herbert H. Sauer, Code R43, Space Environment Laboratory, NOAA
 Environmental Research Laboratories, Boulder, CO 80303 U.S.A.
 Telephone: (303) 497-3681 Telex: 45897 SOLTERWARN BDR

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
GOES 1	*Energetic Particle Monitor (OO; 8/11/77)	75-100A-02
GOES 2	**Energetic Particle Monitor	77-048A-02
GOES 3	Energetic Particle Monitor	78-062A-02
SMS 1	†Energetic Particle Monitor (OO; 7/19/77)	74-033A-02
SMS 2	††Energetic Particle Monitor (OO; 7/16/78)	75-011A-01
	Protons from 1 to 500 MeV in 7 channels	
	Alphas from 4 to 400 MeV in 6 channels	
	Electrons above 2 MeV	
NOAA 3	Solar Proton Monitor (IO; 8/00/76)	73-086A-01
NOAA 4	Solar Proton Monitor (IO; 11/18/78)	74-089A-01
NOAA 5	Solar Proton Monitor (OO; 7/16/79)	76-077A-04
	Protons above 10, 30, and 60 MeV from 0.27 to 3.2 and 3.2 to 60 MeV	
	Alphas from 12.5 to 32 MeV	
Tiros-N	Space Environment Monitor	78-096A-04

SAUER (continued)

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
NOAA 6	Space Environment Monitor Protons from 0.15 to 40 MeV in 5 channels and above 10, 30, 60, and 400 MeV Alphas from 0.15 to 25 MeV/nucleon in 5 channels and above 1000 MeV/nucleon Electrons above 140 keV Charge particle total energy above 1 keV	79-057A-04

*Operated 1/16/76 to 8/10/77.

**Operated from 7/20/77.

†Operated 7/01/74 to 1/08/76; 5/18/76 to 8/16/76; 5/09/77 to 7/19/77.

††Operated 2/10/75 to 5/18/76; 8/17/76 to 5/08/77; 8/11/77 to 3/10/78;
6/01/78 to 7/03/78.

SAVICH

Dr. N. A. Savich, Space Research Institute, U.S.S.R. Academy of
Sciences, Profsoyuznaya Ulitsa 88, Moscow 117810, U.S.S.R.

Telephone: 333-31-22

Telex: 7523 SOLTER SU

Spacecraft

Experiment

NSSDC ID

Venera 11

Two-Frequency Transmitters

78-084A-07

Venera 12

Two-Frequency Transmitters

78-086A-07

Integrated electron density with
centimeter and decimeter
transmitters

SCARF

Dr. Frederick L. Scarf, Bldg. R1, Rm. 1176, TRW Systems Group, One Space Park, Redondo Beach, CA 90278 U.S.A.

Telephone: (213) 536-2015

Telex: 674476 TRWSYSTMS RNDO

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
IMP-H	Plasma Waves (OO; 10/31/78) Electric and magnetic fields from 0.01 to 100 kHz in 15 channels	72-073A-11
ISEE 3	Plasma Waves Monoaxial magnetic fields from 17 Hz to 100 kHz in 16 channels, from 0.017 to 1 kHz in 8 channels, and from 0.28 to 10.1 Hz in 3 channels Biaxial electric fields from 17 Hz to 100 kHz in 16 channels and from 0.017 to 1 kHz in 8 channels	78-079A-07
Pioneer 8	Plasma Waves (IO; 1/21/78)	67-123A-07
Pioneer 9	Plasma Waves Electric fields from 0.1 to 100 kHz with 1 channel at 400 Hz ± 15 percent and 1 channel at 30 kHz ± 15 percent	68-100A-07

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
ISEE 1	Gurnett	77-102A-07
ISEE 2	Gurnett	77-102B-05
Pioneer 8	Eshleman	67-123A-03

SCHUTTE

Dr. N. M. Schutte, Space Research Institute, U.S.S.R. Academy of
Sciences, Profsoyuznaya Ulitsa 88, Moscow V-485, 117810, U.S.S.R.
Telephone: 333-31-22 Telex: 7532 SOLTER SU

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Cosmos 900	Panoramic Electrostatic Spectrometer (IO; 10/11/79)	77-023A-07
	Electrons from 0.1 to 20 keV	
	Protons from 0.1 to 20 keV	

SERAFIMOV

Prof. Kiril B. Serafimov, Scientific Secretary, National Committee of
Space Research, Bldg. Rinski, No. 1, 1000 Sofia, Bulgaria
Telephone: 88-35-03 or 88-51-15 Telex: 22632 CEISMO BG

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Intercosmos 14	*Spherical Ion Traps (IO; 6/28/76) Positive ion density with 10- or 500-m resolution	75-115A-01

*Also under Gdalevich.

SEVERNY

Prof. Andrei B. Severny, Crimean Astrophysical Observatory, U.S.S.R.
Academy of Sciences, P/O Nauchnyj, 334413 Crimea, U.S.S.R.

Telephone:

Telex:

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Prognoz 6	*UV Emission Scanning Spectrometer (IO; 9/00/78)	77-093A-10
Prognoz 7	*UV Emission Scanning Spectrometer (IO; 6/00/79)	78-101A-10

1100 - 1900 Å in 53 channels

*Also under Courtes.

SHARP

Dr. Richard D. Sharp, Department 52-12, Bldg. 205, Lockheed Palo Alto
Research Laboratory, 3251 Hanover Street, Palo Alto, CA 94304 U.S.A.
Telephone: (415) 493-4411 Telex: None
Ext. 45479

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISEE 1	*Ion Mass Spectrometer (P; 4/13/78) Ions from 0 to 17 keV in 32 channels and mass from 1 to above 150 amu in 64 channels with $\Delta M/M$ = 0.1	77-102A-12
S3-3	Ion and Electron Spectrometer (OO; 5/15/79) Electrons from 0.07 to 24 keV in 4 channels Ions from 1 to 32 amu and above 32 amu with energies from 0.5 to 16 keV	76-065B-02

*2/3 of memory unusable, which reduces time resolution. However, this
problem may be overcome in future.

SHEPHERD

Dr. Gordon G. Shepherd, Centre for Experimental Research in Space
Science, York University, 4700 Keele Street, Toronto, Ontario, Canada,
M3J 1P3

Telephone: (416) 667-3221

Telex: 0695502 YORK U TOR

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISIS 2	6300-Å Photometer	71-024A-12
	Atmospheric emissions at $6300 \pm 6 \text{ \AA}$	

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
AE-C	Hays	73-101A-14
AE-D	Hays	75-096A-13
AE-E	Hays	75-107A-11

SHUMAN

Dr. Bertrum M. Shuman, Code PHG, USAF Geophysics Laboratory, Hanscom
AFB, Bedford, MA 01731 U.S.A.

Telephone: (617) 861-3714

Telex: None

Spacecraft

Experiment

NSSDC ID

S3-2

Magnetometer (IO; 5/01/78)

75-114B-08

Vector magnetic fields in auroral
zone

SIMPSON

Prof. John A. Simpson, Enrico Fermi Institute, University of Chicago,
933 East 56th Street, Chicago, IL 60637 U.S.A.
Telephone: (312) 753-8541 TWX: 9102213477 UNIV OF CGO

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
IMP-H	*Solar Flare High-Z/Low-E and Low-Z Isotopes (P; 9/18/74) (OO; 10/31/78)	72-073A-07
IMP-J	Solar Flare High-Z/Low-E and Low-Z Isotopes Individual elements from Z = 1 through 26 from 0.5 to 1200 MeV/nucleon Isotopes of H and He Electron spectra from 0.3 to 10 MeV	73-078A-07

*Cerenkov counter failed 7/09/76; lowers limit to ~ 90 MeV/nucleon.

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
Pioneer 6	Fan	65-105A-03

SKREBTSOV

Dr. G. P. Skrebtsov, A. F. Ioffe Leningrad Institute for Physics and
Technology, U.S.S.R. Academy of Sciences, Polytekhnicheskaya Ulitsa 26,
Leningrad K-21, 194021, U.S.S.R.

Telephone:

Telex:

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Prognoz 4	Proton and Heavy Nuclei Spectrometer (IO; 3/00/76)	75-122A-06
Prognoz 6	Proton and Heavy Nuclei Spectrometer (IO; 9/00/78)	77-093A-06

Charge composition of energetic
particles within 0.9 to 15
MeV/nucleon for $Z > 3$; 0.2 to
7.2 MeV/nucleon for $Z = 1, 2$

SMATHERS

Dr. H. W. Smathers, Code 7120.11, U.S. Naval Research Laboratory, 4555
Overlook Avenue, SW, Washington, DC 20375 U.S.A.

Telephone: (202) 767-3455

Telex: 892632 TCC NRL WSH

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Solrad 11A	X-Ray Monitor (0.1-1.6, 0.5-3, 1-4 Å) (IO; 6/12/77)	76-023C-02
Solrad 11B	X-Ray Monitor (0.1-1.6, 0.5-3, 1-4 Å) (IO; 12/00/76)	76-023D-02

Solar X rays from 4 to 100 keV in
4 channels

SMIDDY

Dr. Michael Smiddy, Code PHG, Space Physics Laboratory, USAF Geophysics
Laboratory, Hanscom AFB, Bedford, MA 01731 U.S.A.

Telephone: (617) 861-2431

Telex: None

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
S3-2	Electric Field Observations (IO; 5/01/78)	75-114B-07
	Three components of auroral electric fields from DC to 30 Hz	

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
ISIS 1	Sagalyn	69-099A-08
ISIS 2	Maier	71-024A-08

Dr. Jan I. Smilauer, Geophysical Institute, Czechoslovak Academy of
 Sciences, Observatory Panska Ves, 471 41 Panska Ves 26, Duba,
 Czechoslovakia
 Telephone: Telex:

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Cosmos 900	*High-Frequency Electron Temperature Probe (IO; 10/11/79)	77-023A-02
Intercosmos 14	Four-Frequency Beacon (IO; 6/28/76) Coherent frequencies of 20.0004, 40.008, 180.036, and 360.072 MHz	75-115A-05
Intercosmos 14	**Perpendicular and Parallel Electron Temperature (IO; 6/28/76) Dynamic temperature range is 400° to 10,000°K	75-115A-02
Prognoz 7	†Electrical Scanning Plasma Detector (IO; 6/00/79) Ions from 0.001 to 20 keV	78-101A-05

*Also under Afonin.

**Also under Gringauz.

†Also under Gringauz and Gombosi.

SMITH

Dr. Edward J. Smith, Mail Stop 183-401, NASA/Jet Propulsion Laboratory,
4800 Oak Grove Drive, Pasadena, CA 91103 U.S.A.
Telephone: (213) 354-2248 Telex:

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISEE 3	Vector Helium Magnetometer	78-079A-02

Vector magnetic fields in ranges
 $\pm 4, 14, 42, 640, 400, 22,000,$ and
140,000 gammas with 0 to 0.5 Hz
passband. Single-axis
measurements in the 0.28 to
0.38, 2.7 to 3.7, and 7.5 to 10.1
Hz intervals are also made

SNYDER

Lt. Col. A. Lee Snyder, Code PHI, USAF Geophysics Laboratory, Hanscom
AFB, Bedford, MA 01731 U.S.A.

Telephone: (617) 861-3127

Telex: None

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
D MSP 5D-1/F2	Passive Ionospheric Monitor (IO; 2/17/80)	77-044A-04
D MSP 5D-1/F4	Passive Ionospheric Monitor (P; 1/28/80)	79-050A-04

Ionospheric breakthrough frequency
with swept receiver from 1.3 to
13.9 MHz in 100 kHz steps

SONETT

Dr. Charles P. Sonett, Department of Planetary Sciences, Lunar and
Planetary Laboratory, University of Arizona, Tucson, AZ 85721 U.S.A.
Telephone: (602) 626-1131 TWX: 9109521143 AZU TUC

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Pioneer 9	Triaxial Magnetometer	68-100A-01
	DC and ULF vector magnetic fields up to 200 gammas	

SOSNOVETS

Dr. E. N. Sosnovets, Institute of Nuclear Physics, Moscow State
University, Leninskie Gory, Moscow 117234, U.S.S.R.

Telephone:

Telex: 7523 SOLTER SU

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Cosmos 900	Differential Energy Spectrometer (IO; 10/11/79)	77-023A-05
	Trapped and precipitating electrons from 80 to 130 keV	
	Trapped and precipitating protons from 80 to 130 keV and 1 to 3 MeV	

SPENCER

Mr. Nelson W. Spencer, Code 960, NASA/Goddard Space Flight Center,
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-5001

Telex: 89675 NASCOM GBLT

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
AE-C	Neutral Gas Temperature and Concentration (P; 2/28/76) (IO; 12/12/78)	73-101A-09
AE-D	Neutral Gas Temperature and Concentration (IO; 1/29/76)	75-096A-09
AE-E	Neutral Gas Temperature and Concentration	75-107A-09

Kinetic temperature of neutral
atmosphere

Concentration of neutral
atmospheric molecular nitrogen

STEINBERG

Dr. Jean Louis Steinberg, Groupe de Radioastronomie Spatiale,
Observatoire de Paris, 92190 Meudon, France

Telephone:

Telex:

Spacecraft

Experiment

NSSDC ID

ISEE 3

Radio Mapping

78-079A-10

Electromagnetic fields from 0.03
to 2 MHz in 24 channels

STONE

Dr. Edward C. Stone, Mail Code 220.47, Space Radiation Laboratory,
California Institute of Technology, Pasadena, CA 91125 U.S.A.
Telephone: (213) 795-6811 TWX: 9105883255 CITRADIOBS PSD
Ext. 1516

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
IMP-H	Electrons and Hydrogen and Helium Isotopes (00; 10/31/78)	72-073A-06
IMP-J	Electrons and Hydrogen and Helium Isotopes Electrons from 0.15 to 5 MeV Hydrogen and helium isotopes and elements with $Z < 8$ from ~ 2 to ~ 40 MeV/nucleon	73-078A-06
ISEE 3	Cosmic-Ray Composition (P; 1/15/79) Nuclei Z from 3 through 28, A from 6 through 64 amu, and energies from 5 to 250 MeV/nucleon with a mass resolution of 0.3 amu or better	78-079A-12

TELTSOV

Dr. M. V. Teltsov, Institute of Nuclear Physics, Moscow State
University, Leninskie Gory, Moscow 117234, U.S.S.R.

Telephone:

Telex: 7523 SOLTER SU

Spacecraft

Experiment

NSSDC ID

Cosmos 900

Differential Low Energy Spectrometer
(IO; 10/11/79)

77-023A-06

Electrons from 0.5 to 20 keV

Protons from 0.5 to 20 keV

TRAINOR

Dr. James H. Trainor, Code 660, NASA/Goddard Space Flight Center,
Greenbelt, MD 20771, U.S.A.

Telephone: (301) 344-6282

Telex: 89675 NASCOM GBLT

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Helios-A	Galactic and Solar Cosmic Rays	74-097A-08
Helios-B	Galactic and Solar Cosmic Rays (IO; 5/15/80)	76-003A-08
	Z = 1 to 10 (resolved) from 0.1 to 800 MeV/nucleon	
	Electrons from 0.05 to 5 MeV	
	Solar X rays from 2 to 8 keV	

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
IMP-H	Williams	72-073A-05
IMP-J	Williams	73-078A-05

TREGER

Dr. L. Treger, Centre d'Etudes Nucleaires de Saclay, Boite Postale No.
2, 91 Gif-sur-Yvette, France

Telephone:

Telex:

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Prognoz 6	*Energetic Electron and Proton Spectrometer (IO; 9/00/78) Electrons from 0.3 to 15 MeV in 3 channels and above 20 MeV Protons from 2.1 to 500 MeV in 6 channels	77-093A-09
Prognoz 7	*Energetic Electron Spectrometer (IO; 6/00/79) Electrons from 3 to 120 MeV	78-101A-09

*Also under Pisarenko.

TRISKA

Dr. Pavel Triska, Ionosphere Department, Geophysical Institute,
Czechoslovak Academy of Sciences, Sporilov Bocni II, 141 31 Prague 4,
Czechoslovakia

Telephone:

Telex:

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Intercosmos 14	*ELF/VLF Receiver (IO; 6/28/76)	75-115A-03

Electric and magnetic fields from
0.05 to 20 kHz in 10 channels and
2 narrow-band filters at 0.72 and
4.0 kHz

*Also under Likhter.

TULUPOV

Dr. V. I. Tulupov, Institute of Nuclear Physics, Moscow State
University, Leninskie Gory, Moscow 117234, U.S.S.R.

Telephone:

Telex: 7523 SOLTER SU

Spacecraft

Experiment

NSSDC ID

Cosmos 900

Auroral Photometer (IO;10/11/79)

77-023A-09

Emissions at 3914 Å

UNGSTRUP

Dr. Eigil Ungstrup, Danish Space Research Institute, Lundtoftevej 7,
DK-2800 Lyngby, Denmark

Telephone: 02 882277

Telex: 16688 DANRU DK

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ESA-GEOS 1	Electric Wave Fields (Part of S-300) (00; 6/23/78)	77-029A-10
ESA-GEOS 2	Electric Wave Fields (Part of S-300)	78-071A-10

Vector electric fields from 0.05
to 77 kHz

VAMPOLA

Dr. Alfred L. Vampola, Bldg. A6, Mail Station 2437, Space Sciences
Laboratory, Aerospace Corporation, P.O. Box 92957, Los Angeles, CA 90009
U.S.A.

Telephone: (213) 648-6078

TWX: 9103486640 AERO-CORP ELS

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Solrad 11A	*Solar Flare Electrons (IO; 6/12/77)	76-023C-22
Solrad 11B	**Solar Flare Electrons (IO; 1/00/77)	76-023D-22
	Electrons from 11 keV to 1.5 MeV in 12 channels	
S3-2	Electron Magnetic Spectrometer (IO; 5/01/78)	75-114B-06
	Electrons from 56 to 500 keV	
S3-3	Energetic Particle Spectrometer (IO; 5/15/79)	76-065B-07
	Electrons from 0.012 to 1.6 MeV in 12 channels	
	Protons from 0.08 to 3 MeV in 5 integral channels	
	Alphas above 4 MeV	

*Noisy by 8/25/76; 60 percent sectoring by 1/18/77.

**Sixty percent sectoring by 12/76.

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
ATS 6	Paulikas	74-039A-07

VAN ALLEN

Prof. James A. Van Allen, Department of Physics and Astronomy,
University of Iowa, Iowa City, IA 52242 U.S.A.
Telephone: (319) 353-4531 TWX: 9105251398 U OF I PHYSICS

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Hawkeye 1	Triaxial Fluxgate Magnetometer (IO; 4/28/78)	74-040A-01
	Magnetic fields from DC to 10 Hz in 4 ranges (with 8-bit accuracy): ± 150 (± 1.2); ± 450 (± 3.5); ± 1500 (± 11.7); and $\pm 25,000$ (± 195.3) gammas	

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
IMP-H	Krimigis	72-073A-08
IMP-J	Krimigis	73-078A-08

VANCOUR

Dr. Roger Vancour, Code PHG, USAF Geophysics Laboratory, Hanscom AFB,
Bedford, MA 01731 U.S.A.

Telephone: (617) 861-3713

Telex: None

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
S3-2	Electrostatic Analyzer (1 to 20 keV) (IO; 5/01/78)	75-114B-09
	Electrons and protons from 1 to 20 keV	
STP P78-1	High-Latitude Particle Spectrometer	79-017A-04
	Electrons from 50 ev to 20 keV in 16 channels	

VON ROSENVINGE

Dr. Tycho T. Von Rosenvinge, Code 661, NASA/Goddard Space Flight Center,
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-6721

Telex: 89675 NASCOM GBLT

Spacecraft

Experiment

NSSDC ID

ISEE 3

Medium-Energy Cosmic Rays

78-079A-04

Protons from 0.5 to 500 MeV

Electrons from 0.07 to 0.2 and from
0.3 to 12 MeV

Nuclei $2 < Z < 26$ from 0.5 to 500
MeV/nucleon, $Z = 1, 2$ from 4 to 80
MeV/nucleon, $3 < Z < 7$ from 8 to
120 MeV/nucleon, $8 < Z < 16$ from
10 to 200 MeV/nucleon

WEBBER

Dr. William R. Webber, Department of Physics, Demeritt Hall, University
of New Hampshire, Durham, NH 03824 U.S.A.

Telephone: (603) 862-2756

TWX: 5102974441 UNIV NH LIB

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Pioneer 9	Cosmic Ray Telescope	68-100A-06
	Electrons from 0.31 to 5.1 MeV in 3 channels and above 5.1 MeV	
	Protons from 2.2 to 42 MeV in 5 channels	
	Alphas from 5.8 to 42 MeV/nucleon in 3 channels	
	Nuclei above 14 MeV/nucleon plus electrons above 0.6 MeV	
	Nuclei above 42 MeV/nucleon plus electrons above 5.1 MeV	

WELLER

Dr. Charles S. Weller, Jr., Code 7124.0, U.S. Naval Research Laboratory,
4555 Overlook Avenue, SW, Washington, DC 20375 U.S.A.
Telephone: (202) 767-2481 Telex: 892632 TCC NRL WSH

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Solrad 11A	*Geocoronal/Extraterrestrial EUV - Detector 1 (I0; 6/12/77)	76-023C-18
Solrad 11A	*Geocoronal/Extraterrestrial EUV - Detector 2 (I0; 6/12/77)	76-023C-19
Solrad 11B	Geocoronal/Extraterrestrial EUV - Detector 1 (I0; 12/00/76)	76-023D-18
Solrad 11B	Geocoronal/Extraterrestrial EUV - Detector 2 (I0; 12/00/76)	76-023D-19

Nonsolar EUV from 200 to 1400 Å
with filters for emission line
isolation

*Only 60 percent sectoring by 1/18/77.

WHIPPLE

Dr. Elden C. Whipple, Jr., Physics Department, B-019, University of
California, San Diego, P.O. Box 109, La Jolla, CA 92093 U.S.A.
Telephone: (714) 452-3315 TWX: 9103371777 CUSD CUL LJLA

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
STP P78-2	Charged Particle Detector	79-007A-11
	Electrons from 1 to 70,000 eV in 64 channels	
	Ions from 1 to 70,000 eV in 64 channels	

WHITTEKER

Dr. J. H. Whitteker, Communications Research Centre, Department of
Communications, Shirley Bay, P.O. Box 11490, Station 'H', Ottawa,
Ontario, Canada K2H 8S2

Telephone: (613) 596-9279

Telex: 0534143 CRC RESCEN OTT

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ISIS 1	Sweep Frequency Sounder	69-009A-01
ISIS 2	Sweep Frequency Sounder	71-024A-01
	Frequency from 0.1 to 20 MHz	
ISIS 1	Fixed Frequency Sounder	69-009A-02
ISIS 2	Fixed Frequency Sounder	71-024A-02
	Frequency from 0.1 to 20 MHz	

WILKEN

Dr. Berend Wilken, Max-Planck-Institut fur Aeronomie, Postfach 20,
D-3411 Katlenburg-Lindau 3, Fed. Rep. of Germany
Telephone: (05556) 411 Telex: 965527 AERLI D

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ESA-GEOS 1	Electron and Proton Pitch Angle Distribution (OO; 6/23/78)	77-029A-01
	Protons from 40 keV to 1.4 MeV	
	Electrons from 30 to 200 keV	

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
ATS 6	Fritz, T.	74-039A-01
ESA-GEOS 2	Korth	78-071A-01
Helios-A	Keppler	74-097A-10
Helios-B	Keppler	76-003A-10
ISEE 1	Williams	77-102A-09
ISEE 2	Keppler	77-102B-07

WILLIAMS

Dr. Donald J. Williams, Director (R43), NOAA/Space Environment
Laboratory, U.S. Department of Commerce, 325 S. Broadway, Boulder, CO
80303 U.S.A.

Telephone: (303) 497-3311

Telex: 45897 SOLTERWARN BDR

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
IMP-H	Energetic Electrons and Protons (OO; 10/31/78)	72-073A-05
IMP-J	Energetic Electrons and Protons Electrons from 30 to 450 keV in 2 channels and above 450 keV Protons from 0.03 to 8.6 MeV in 5 channels and above 8.6 MeV Alphas above 0.5 MeV, above 1.6 MeV, from 2.2 to 8.8 MeV, and from 8.8 to 35 MeV Charged particles above 15 keV Charged particles above 5 MeV with Z above 2	73-078A-05
ISEE 1	Energetic Electrons and Protons (IO; 10/02/79) Electrons from 0.02 to 1 MeV in 8 or 16 channels Protons from 0.02 to 1.2 MeV in 8 or 16 channels Alphas and heavy ion spectra above 125 keV/nucleon	77-102A-09

WILLIAMS (continued)

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
ATS 6	Fritz, T.	74-039A-01
Helios-A	Keppler	74-097A-10
Helios-B	Keppler	76-003A-10
ISEE 2	Keppler	77-102B-07

WINCKLER

Prof. John R. Winckler, School of Physics and Astronomy, University of Minnesota, 148 Physics Bldg., Minneapolis, MN 55455 U.S.A.

Telephone: (612) 373-4688

TWX: 9105763491 MNUWL-MPS

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ATS 6	*Particle Acceleration Mechanisms and Dynamics of the Outer Trapping Region (IO; 1/15/77)	74-039A-04
	Electrons from 30 to 500 keV in 2 channels and above 500 keV	
	Protons from 20 to 50, 50 to 150, and 150 to 500 keV	

*Proton detectors failed on 3/15/76; electron channel above 500 keV has also failed. The remaining channels were noisy during warm part of day.

Status of Data Analysis (as of 4/77): Routine production of summary plots is complete from launch through June 1975. In interval from 6/75-11/76 about 2 months in 2-week increments have been processed. Routine production plots through 6/76 will be done, and thereafter only specific events will be reduced.

Dr. John H. Wolfe, Mail Stop 204-2, Space Physics Branch, NASA/Ames
 Research Center, Moffett Field, CA 94035 U.S.A.
 Telephone: (415) 965-5518 Telex: 348408 NASA AMES MOFD

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Pioneer 6	Electrostatic Analyzer	65-105A-06
	Ions from 0.2 to 10 keV/Q in 16 channels	
	Electrons from 0 to 500 eV in 8 channels	
Pioneer 8	Electrostatic Analyzer (IO; 10/10/77)	67-123A-02
Pioneer 9	Electrostatic Analyzer	68-100A-02
	Ions from 0.15 to 15 keV/Q in 30 channels	
	Electrons from 0.012 to 1 keV in 14 channels	

Also a contact on:

<u>Spacecraft</u>	<u>Scientific Contact</u>	<u>NSSDC ID</u>
Helios-A	Rosenbauer	74-094A-09
Helios-B	Rosenbauer	76-003A-09

WRENN

Dr. G. L. Wrenn, Department of Physics and Astronomy, Mullard Space
Science Laboratory, University College London, Holmbury Saint Mary,
Dorking, Surrey RH5 6NS, England

Telephone: Forest Green
(030-670) 292

Telex: 859185 UCL HOLMBURY

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
ESA-GEOS 1	Thermal Plasma Flow (OO; 6/23/78)	77-029A-02
ESA-GEOS 2	Thermal Plasma Flow	78-071A-02

Electrons and protons from 0.5 to
500 eV in 64 channels with $\Delta E/E$
 ≈ 0.11

Dr. Kenneth Yates, Code PHG, USAF Geophysics Laboratory, Hanscom AFB,
Bedford, MA 01731 U.S.A.

Telephone: (617) 861-2933

Telex: None

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
OV5-6	Geiger-Mueller Tube, Solar X-Ray Detector, 2 to 12 Å (IO; 8/01/76) Solar X rays from 2 to 12 Å	69-046B-01
OV5-6	Sodium Iodide Scintillator, Gamma-Ray Detector, 19 to 1175 keV (IO; 8/01/76) Solar X rays from 19 to 1175 keV in 4 channels	69-046B-02
OV5-6	Proton-Alpha Particle Telescope (IO; 8/01/76) Protons from 5.3 to 100 MeV in 4 channels Alphas from 20 to 100 MeV in 3 channels	69+046B-03
OV5-6	Low-Energy Electron Detector (IO; 8/01/76) Electrons above 40 keV	69-046B-05
Solrad 11A	Proton-Alpha Telescope (IO; 6/12/77)	76-023C-20
Solrad 11B	Proton-Alpha Telescope (IO; 1/07/77)	76-023D-20
S3-3	Proton Alpha Telescope (OO; 5/15/79) Protons from 3 to 100 MeV in 5 channels	76-065B-04

YATES (continued)

Solrad 11A	Low-Energy Proton Spectrometer (IO; 12/00/76)	76-023C-21
Solrad 11B	*Low-Energy Proton Spectrometer	76-023D-21
S3-2	Low-Energy Proton Spectrometer (IO; 5/01/78)	75-114B-04
	Protons from 0.1 to 6 MeV in 12 channels	
S3-2	Proton-Alpha Telescope (IO; 5/01/78)	75-114B-05
	Alphas from 10 to 100 MeV in 4 channels	
S3-3	Low-Energy Proton Spectrometers (OO; 5/15/79)	76-065B-03
	Protons from 0.1 to 6 MeV and from 0.3 to 6 MeV in 12 channels	

*Very little useful data expected after 1/07/77 due to spacecraft thermal problem.

YOSHINO

Prof. Takeo Yoshino, Radio Physics Laboratory, University of
Electro-Communications, 1-5-1 Chofugaoka, Chofu-Shi, Tokyo 182, Japan
Telephone: 0424-83-2161 Telex: 2822-446 UECJ
Ext. 402 or 403

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Kyokko	*Plasma Wave Detector (00; 11/09/79) Electric fields from 0.4 to 30 kHz in wide band and 45 kHz to 3 MHz in 11 channels	78-014A-04

*Turned on 2/23/78.

ZERTSALOV

Mr. A. A. Zertsalov, Space Research Institute, U.S.S.R. Academy of
Sciences, Profsoyuznaya Ulitsa 88, Moscow, V-485, 117810, U.S.S.R.
Telephone: 333-31-22 Telex: 7523 SOLTER SU

<u>Spacecraft</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Prognoz 5	*Plasma Spectrometers (IO; 7/20/77) Electrons from 3 eV to 15 keV Protons from 3 eV to 15 keV Positive ions from 3 eV to 4 keV with mass resolution	76-112A-09

*Also under Bosqued.

AE-C*
(IO; 12/12/78)

International Designation: 1973-101A

Launch date: December 16, 1973
Orbit type: Geocentric

Epoch (M/D/Y):	6/30/76	12/18/76	7/09/77	12/18/77	3/25/78
Period (min):	90.2	89.7	92.4	92.0	91.8
Inclination:	67.9°	68.0°	68.0°	67.9°	68.0°
Perigee (km alt):	283	256	385	371	358
Apogee (km alt):	294	265	399	379	363

Epoch (M/D/Y): 8/30/78
Period (min): 91.0
Inclination: 67.9°
Perigee (km alt): 321
Apogee (km alt): 328

Mr. Nelson W. Spencer
Code 960
NASA/Goddard Space Flight Center
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-5001
Telex: 89765 NASCOM GBLT

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Barth	Ultraviolet Nitric Oxide	73-101A-13
Brace	Electron Temperature and Concentration	73-101A-01
Brinton	Ion Composition and Concentration	73-101A-11
Champion	Atmospheric Drag	73-101A-02
Doering	Photoelectron Spectrometer	73-101A-03
Hanson	Retarding Potential Analyzer, Drift Meter	73-101A-04
Hays	Airglow Photometer	73-101A-14
Heath	Solar EUV Filter Photometer	73-101A-05
Hinteregger	Solar EUV Spectrometer	73-101A-06
Hoffman, J.	Magnetic Ion Mass Spectrometer	73-101A-10

*Reactivated on 2/20/76. As of 1/01/77, no redundancy on power, communications, or data handling.

AE-C (continued)

Hoffman, R.	Low-Energy Electrons	73-101A-12
Nier	Open Source Neutral Mass Spectrometer	73-101A-07
Rice	**Capacitance Manometer	73-101A-16
Spencer	Neutral Gas Temperature and Concentration	73-101A-09

** Not included in Scientific Contact Section; engineering experiments for spacecraft operations.

AE-D
(IO; 1/29/76)

International Designation: 1975-096A

Launch date: October 6, 1975
Orbit type: Geocentric

Epoch (M/D/Y): 12/31/75
Period (min): 118.5
Inclination: 90.0°
Perigee (km alt): 141
Apogee (km alt): 3093

Mr. Nelson Spencer
Code 960
NASA/Goddard Space Flight Center
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-5001
Telex: 89675 NASCOM GBLT

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Barth	Ultraviolet Nitric Oxide	75-096A-11
Brace	Electron Temperature and Concentration	75-096A-01
Champion	Atmospheric Drag	75-096A-02
Doering	Photoelectron Spectrometer	75-096A-03
Hanson	Retarding Potential Analyzer, Drift Meter	75-096A-04
Hays	Airglow Photometer	75-096A-13
Hinteregger	Solar EUV Spectrometer	75-096A-06
Hoffman, J.	Magnetic Ion Mass Spectrometer	75-096A-10
Hoffman, R.	Low-Energy Electrons	75-096A-12
Nier	Open Source Neutral Mass Spectrometer	75-096A-07
Rice	*Cold Cathode Ion Gage	75-096A-15
Spencer	Neutral Gas Temperature and Concentration	75-096A-09

*Not included in Scientific Contact Section; engineering experiment for space operations.

International Designation: 1975-107A

Launch date: November 20, 1975
Orbit type: Geocentric

Epoch (M/D/Y):	6/30/76	12/18/76	7/06/77	12/28/77	5/02/78
Period (min):	102.4	89.8	90.2	90.0	91.2
Inclination:	19.6°	19.7°	19.6°	19.6°	19.7°
Perigee (km alt):	151	264	281	275	331
Apogee (km alt):	1589	264	284	275	332

Epoch (M/D/Y): 6/29/79
Period (min): 93.6
Inclination: 19.6°
Perigee (km alt): 447
Apogee (km alt): 450

Mr. Nelson W. Spencer
Code 960
NASA/Goddard Space Flight Center
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-5001
Telex: 89765 NASCOM GBLT

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Brace	Electron Temperature and Concentration	75-107A-01
Brinton	Ion Composition and Concentration	75-107A-10
Champion	Atmospheric Drag	75-107A-02
Doering	Photoelectron Spectrometer	75-107A-03
Hanson	Retarding Potential Analyzer, Drift Meter	75-107A-04
Hays	Airglow Photometer	75-107A-11
Heath	Solar EUV Filter Photometer	75-107A-05
Heath	Backscatter UV Spectrometer	75-107A-16
Hedin	Closed Source Neutral Mass Spectrometer	75-107A-08
Hinteregger	Solar EUV Spectrometer	75-107A-06

*Circular orbit phase of mission began on 11/20/76.

AE-E (continued)

Nier	Open Source Neutral Mass Spectrometer	75-107A-07
Rice	**Cold Cathode Ion Gage	75-107A-12
Rice	**Capacitance Manometer	75-107A-13
Spencer	Neutral Gas Temperature and Concentration	75-107A-09

**Not included in Scientific Contact Section; engineering experiments for spacecraft operations.

Apollo LM/ALSEPs
(OO; 9/30/77)

	<u>International Designation</u>	<u>Launch Date</u>	<u>Lunar Surface Coordinates</u>	
			<u>Latitude</u>	<u>Longitude</u>
Apollo 12 LM/ALSEP	1969-099C	November 14, 1969	3°11'S	23°23'W
Apollo 14 LM/ALSEP	1971-008C	January 31, 1971	3°40'S	17°27'W
Apollo 15 LM/ALSEP	1971-063C	July 26, 1971	26°6'N	3°39'E

Mr. W. F. Eichelman
Code TC 3
NASA/Johnson Space Center
Houston, TX 77058 U.S.A.

Telephone: (713) 483-2666
Telex: 762931 NASA JSC HOU

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Freeman (A12)	Suprathermal Ion Detector	69-099C-05
Freeman (A15)	Suprathermal Ion Detector	71-063C-05
Reasoner (A14)	*Charged Particle Lunar Environment	71-008C-08
Snyder (A12)	*Solar Wind Spectrometer	69-099C-02

*Not included in Scientific Contact Section; no data sent to investigators during IMS.

International Designation: 1969-069A

Launch date: August 12, 1969
Orbit type: Geostationary

Epoch (M/D/Y):	6/30/76	1/10/77	6/30/77	12/28/77	5/17/78
Period (min):	1436.2	1435.9	1436.1	1436.0	1435.9
Inclination:	3.4°	3.8°	4.1°	4.5°	4.7°
Longitude:	105.3°W	105.4°W	69.3°W	69.9°W	70.6°W
Drift/day:	0.006°W	*	*	0.004°W	0.005°W

Epoch (M/D/Y):	3/7/79	11/14/79
Period (min):	1436.1	1435.9
Inclination:	5.1°	5.7°
Longitude:	69.6°W	70.0°W
Drift/day:	0.001°E	0.001°W

Dr. Brian Ledley
Code 694
NASA/Goddard Space Flight Center
Greenbelt, MD 20771 U.S.A.

Telephone: (301) 344-6259
Telex: 89675 NASCOM GBLT

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Darosa	Radio Beacon	69-069A-12
McIlwain	Omnidirectional High-Energy Particle Detector	69-069A-03
Mozer	Tridirectional Medium-Energy Particle Detector	69-069A-04

*Commencing January 17, 1977, ATS 5 was moved to about 70°W in 120 days.
During the IMS, the above experiments have only been operated during
special periods.

ATS 6*
(00; 8/02/79)

International Designation: 1974-039A

Launch date: May 30, 1974
Orbit type: Geostationary

Epoch (M/D/Y):	7/11/76	2/04/77	7/08/77	1/18/78	5/11/78
Period (min):	1436.2	1436.2	1436.1	1436.1	1436.2
Inclination:	0.1°	0.4°	0.8°	1.2°	1.4°
Longitude:	35.1°E	140.0°W	140.1°W	140.0°W	140.0°W
Drift/day:	0.0104°E	0.0142°E	0.0042°W	0.0021°E	0.0031°E

Epoch (M/D/Y): 1/16/79
Period (min): 1436.1
Inclination: 1.9°
Longitude: 140.1°W
Drift/day: ~0.001°W

Dr. Theodore A. Fritz
Code R43
Space Environment Laboratory
NOAA Environmental Research
Laboratories
Boulder, CO 80303 U.S.A.

Telephone: (303) 497-3669
Telex: 45897 SOLTERWARN
BDR

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Arnoldy	Electron Proton Electrostatic Analyzer	74-039A-03
Coleman, Jr.	Magnetometer	74-039A-02
Davies	Radio Beacon	74-039A-09
Fritz, T.	Measurement of Low-Energy Protons	74-039A-01
Masley	Solar Cosmic Rays and Geomagnetically Trapped Radiation	74-039A-06
McIlwain	Auroral Particles	74-039A-05
Paulikas	Omnidirectional Spectrometer	74-039A-07
Winckler	Particle Acceleration Mechanisms and Dynamics of the Outer Trapping Region	74-039A-04

*Data acquisition nearly 100 percent as of 4/77. All measurement experiments listed were turned off on 3/31/78 and were operational only during special periods thereafter, particularly when STP P78-2 (SCATHA) was nearby. The spacecraft was deorbited from geostationary on 7/31/79. On 12/30/79 orbit elements were apogee 35,796 km, perigee 35,767 km, inclination 2.2°, and period 1435.8 min. It is drifting eastward and makes one complete rotation around the equator every 60 days.

Cosmos 900
(IO; 10/11/79)

International Designation: 1977-023A

Launch date: March 30, 1977
Orbit type: Geocentric

Epoch (M/D/Y):	3/30/77	12/30/77
Period (min):	94.4	94.2
Inclination:	83.0°	82.9°
Perigee (km alt):	460	450
Apogee (km alt):	523	517

Prof. B. A. Tverskoy
Institute of Nuclear Physics
Moscow State University
Leninskie Gory, Moscow 117234
U.S.S.R.

Telephone:
Telex: 7523 SOLTER SU

Prof. K. I. Gringauz
Space Research Institute
U.S.S.R. Academy of Sciences
Profsoyuznaya Ulitsa 88
Moscow V-485, 117810
U.S.S.R.

Telephone: 333-31-22
Telex: 7523 SOLTER SU

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Afonin	Flat Retarding Potential Analyzer	77-023A-01
Afonin/Smilauer	High Frequency Electron Temperature Probe	77-023A-02
Gdalevich	Spherical Ion Trap With Floating Potential	77-023A-03
Gdalevich	Cylindrical Electrostatic Probe	77-023A-04
Gortchakov	Relativistic Proton and Electron Counter	77-023A-08
Schutte	Panoramic Electrostatic Spectrometer	77-023A-07
Sosnovets	Differential Energy Spectrometer	77-023A-05
Teltsov	Differential Low Energy Spectrometer	77-023A-06
Tulupov	Auroral Photometer	77-023A-09

DMSP 5D-1/F1
(OO; 9/16/79)

International designation: 1976-091A

Launch date: September 11, 1976

Orbit type: Geocentric

Epoch (M/D/Y):	2/06/78	6/29/79
Period (min):	101.5	101.4
Inclination:	98.7°	98.6°
Perigee (km alt):	819	815
Apogee (km alt):	847	845

Mr. Herbert W. Kroehl
DF 63
National Geophysics and Solar-
Terrestrial Data Center
NOAA/Environmental and Information
Data Service
Boulder, CO 80302 U.S.A.

Telephone: (303) 497-6501
Telex: 45897 SOLTERWARN
BDR

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Blake	Radiation Dosimeter	76-091A-03
Kroehl	Operational Linescan System	76-091A-01
Kroehl	*Vertical Temperature Profile Radiometer Special Sensor H (SSH)	76-091A-02
Shrum	*Gamma-Ray Detector	76-091A-04

*Not included in Scientific Contact Section; experiment not related to magnetospheric physics.

DMSP 5D-1/F2
(OO; 2/17/80)

International Designation: 1977-044A

Launch date: June 5, 1977
Orbit type: Geocentric

Epoch (M/D/Y):	2/06/78	6/29/79
Period (min):	101.6	101.5
Inclination:	99.2°	99.1°
Perigee (km alt):	802	800
Apogee (km alt):	867	863

Mr. Herbert W. Kroehl
DF 63
National Geophysics and Solar-
Terrestrial Data Center
NOAA/Environmental and Information
Data Service
Boulder, CO 80302 U.S.A.

Telephone: (303) 497-6501
Telex: 45897 SOLTERWARN
BDR

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Kroehl	Operational Linescan System	77-044A-01
Kroehl	*Vertical Temperature Profile Radiometer Special Sensor H (SSH)	77-044A-02
Mizera	Remote X-Ray Sensor	77-044A-06
Rothwell	Precipitating Electron Spectrometer	77-044A-03
Sagalyn	Ionospheric Plasma Monitor	77-044A-05
Snyder	Passive Ionospheric Monitor	77-044A-04

*Not included in Scientific Contact Section; experiment not related to magnetospheric physics.

International Designation: 1978-042A

Launch date: May 1, 1978
Orbit type: Geocentric

Epoch (M/D/Y):	5/01/78	6/29/79
Period (min):	101.5	101.3
Inclination:	98.7°	98.6°
Perigee (km alt):	820	816
Apogee (km alt):	835	832

Mr. Herbert W. Kroehl
DF 63
National Geophysics and Solar-
Terrestrial Data Center
NOAA/Environmental and Information
Data Service
Boulder, CO 80302 U.S.A.

Telephone: (303) 497-6501
Telex: 45897 SOLTERWARN
BDR

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Kroehl	Operational Linescan System	78-042A-01
Kroehl	**Vertical Temperature Profile Radiometer Special Sensor H (SSH)	78-042A-02
Rothwell	Precipitating Electron Spectrometer	78-042A-03
Shrum	**Gamma-Ray Detector	78-042A-04

*Data return impact suspected to be caused by sun shield disorientation.

**Not included in Scientific Contact Section; experiment not related magnetospheric physics.

International Designation: 1979-050A

Launch date: June 6, 1979
Orbit type: Geocentric

Epoch (M/D/Y):	6/29/79	12/30/79
Period (min):	101.4	101.4
Inclination:	98.7°	98.7°
Perigee (km alt):	817	816
Apogee (km alt):	839	840

Dr. Fred A. Morse
Bldg. A6
Space Sciences Laboratory
Aerospace Corporation
P.O. Box 92957
Los Angeles, CA 90009 U.S.A.

Telephone: (213) 648-7084
TWX: 9103486640
AERO-CORP ELS

<u>Scientific Contact</u>	<u>Experiment</u>	<u>NSSDC ID</u>
Kroehl	Operational Linescan System	79-050A-01
Kroehl	*Vertical Temperature Profile Radiometer Special Sensor H (SSH)	79-050A-02
Kroehl	*Microwave Temperature Sounder	79-050A-06
Kroehl	*Snow/Cloud Discriminator	79-050A-08
Morse	Atmospheric Density Sensor	79-050A-07
Rothwell	Precipitating Electron Spectrometer	79-050A-03
Sagalyn	Ionospheric Plasma Monitor	79-050A-05
Snyder	Passive Ionospheric Monitor	79-050A-04

*Not included in Scientific Contact Section; experiment not related to magnetospheric physics.